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TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1940

No. 154

EXHIBIT SUPPLY COMPANY, PETITIONER,

vs.

ACE PATENTS CORPORATION

No. 155

GENCO, INC., PETITIONER,

vs.

ACE PATENTS CORPORATION

No. 156

CHICAGO COIN MACHINE COMPANY, PETITIONER,

vs.

ACE PATENTS CORPORATION

**ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT
OF APPEALS FOR THE THE SEVENTH CIRCUIT**

PETITION FOR CERTIORARI FILED JUNE 11, 1941.

CERTIORARI GRANTED NOVEMBER 10, 1941.

IN THE
Supreme Court of the United States

OCTOBER TERM, A. D. 1940.

No.

**THE EXHIBIT SUPPLY COMPANY, GENCO, INC.,
A CORPORATION, AND CHICAGO COIN MACHINE CO.,
A CORPORATION,**

Petitioners,

vs.

ACE PATENTS CORPORATION, A CORPORATION,
Respondent.

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT
OF APPEALS FOR THE SEVENTH CIRCUIT.

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Incomplete

TRANSCRIPT OF RECORD

IN THE

United States Circuit Court of Appeals For the Seventh Circuit

ACE PATENTS CORPORATION, A CORPORATION,
Plaintiff-Appellee,

No. 7402 *vs.*

THE EXHIBIT SUPPLY COMPANY,
Defendant-Appellant.

ACE PATENTS CORPORATION, A CORPORATION,
Plaintiff-Appellee,

No. 7403 *vs.*

GENCO, INC., A CORPORATION,
Defendant-Appellant.

ACE PATENTS CORPORATION, A CORPORATION,
Plaintiff-Appellee,

No. 7404 *vs.*

CHICAGO COIN MACHINE CO., A CORPORATION,
Defendant-Appellant.

Appeals from the District Court of the United States for
the Northern District of Illinois, Eastern Division.

TRANSCRIPT OF RECORD FILED JULY 15, 1940.
PRINTED RECORD.

IN THE
United States Circuit Court of Appeals
For the Seventh Circuit

ACE PATENTS CORPORATION, A CORPORATION,
Plaintiff-Appellee,

No. 7402 *vs.*

THE EXHIBIT SUPPLY COMPANY,
Defendant-Appellant.

ACE PATENTS CORPORATION, A CORPORATION,
Plaintiff-Appellee,

No. 7403 *vs.*

GENCO, INC., A CORPORATION,
Defendant-Appellant.

ACE PATENTS CORPORATION, A CORPORATION,
Plaintiff-Appellee,

No. 7404 *vs.*

CHICAGO COIN MACHINE CO., A CORPORATION,
Defendant-Appellant.

Appeals from the District Court of the United States for
the Northern District of Illinois, Eastern Division.

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1 Pleas in the District Court of the United States for
the Northern District of Illinois, Eastern Division,
begun and held at the United States Court Room, in the
City of Chicago, in said District and Division, before the
Honorable John P. Barnes, District Judge of the United
States for the Northern District of Illinois on 28th day of
May, in the year of our Lord one thousand nine hundred
and forty, being one of the days of the regular May Term
of said Court, begun Monday, the Sixth day of May, and
of our Independence the 164th year.

Present:

Honorable John P. Barnes, District Judge.
William H. McDonnell, U. S. Marshal.
Hoyt King, Clerk.

2

Complaint, No. 16,209.

2

IN THE DISTRICT COURT OF THE UNITED STATES,

Northern District of Illinois

Eastern Division.

Ace Patents Corporation,
a corporation,

vs.

The Exhibit Supply Co.,
a corporation.

No. 16,209.

Filed
Sept. 6,
1938.

Be It Remembered, that the above-entitled action was commenced by the filing of the following Bill of Complaint in the above-entitled cause, in the office of the Clerk of the District Court of the United States for the Northern District of Illinois, Eastern Division, on this the 6th day of September, A. D. 1938:

3

IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois

Eastern Division.

Ace Patents Corporation,
a corporation,

Plaintiff,

vs.

The Exhibit Supply Co.,
a corporation,

Defendant.

Equity No. 16,209.

United States Letters

Patent No. 2,109,678.

BILL OF COMPLAINT.

To the Honorable the Judges of the United States District Court for the Northern District of Illinois, Eastern Division:

Ace Patents Corporation, a corporation duly organized under and existing under and by virtue of the laws of the State of Illinois, and having a regular and established place of business at 3705 Field Building in the City of Chicago, County of Cook, and State of Illinois, brings

this, its complaint against The Exhibit Supply Co., a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, with its regular and established place of business at 4222 W. Lake Street, Chicago, Illinois, within the Northern District, Eastern Division of Illinois, within which District, as well as elsewhere throughout the United States, the defendant has committed and is committing the infringing acts herein complained of.

And whereupon plaintiff complains and says and for its complaint alleges that:

1. This suit is brought under and by virtue of the laws of the United States for infringement of letters
4 patent of the United States Number 2,109,678, granted on the first day of March, 1938.

2. Nels A. Nelson, within the statutes of the United States then in force, being the first, original and sole inventor of a certain contact switch for use in ball rolling games, or the like not known or used before his invention or discovery thereof, or patented or described in any printed publication in any country before his invention or discovery thereof, or more than two years prior to the filing of his application hereinafter mentioned, or in public use or on sale in the United States for more than two years prior to the said application and not patented in any country foreign to the United States on an application filed by him or his legal representatives or assigns more than twelve months prior to the said application and which invention has not been abandoned to the public, did in due form and in full compliance with the statutes in such cases made and provided, on, to-wit: the 12th day of January, 1937, file his application with the proper department of the Government of the United States for the grant to him of United States letters patent upon and for his invention aforesaid.

3. Thereupon such proceedings were had upon and pursuant to said application and in due form and in full compliance with all the requirements of the laws then in force and the Rules of Practice of the United States Patent Office, on to-wit: the 1st day of March, 1938, United States letters patent #2,109,678, now in full force and effect, were lawfully granted to the said Nels A. Nelson, for his said invention, said letters patent or a duly certified copy thereof being ready to be produced in court as and when this Honorable Court may direct.

5 4. That the plaintiff, Ace Patents Corporation, for good and valuable consideration, became and is now the owner of all the right, title and interest in and to and under said letters patent #2,109,678, a duly certified copy of assignments thereof being ready to be produced in court as and when this Honorable Court may direct.

5 5. That the plaintiff herein has expended and is now expending large sums of money in developing a demand for the said invention set forth and claimed in the said letters patent #2,109,678, and upon introduction of the said patented device to the trade the said patented device met with great favor and commercial success and said invention is of great benefit to and in demand by the trade, and the trade generally, with the exception of the defendant, have acknowledged and acquiesced in the rights of plaintiff under the said letters patent #2,109,678.

6 6. That prior to the filing of this complaint, plaintiff has complied with the United States Statutes in such cases made and provided, by marking the devices embodying the invention and improvements set forth and claimed in said letters patent #2,109,678, "Patented" together with the date and number of the aforesaid letters patent #2,109,678, and in addition to the said marking, the defendant was duly notified by plaintiff that the devices herein complained of were and are an infringement of said letters patent #2,109,678, a copy of said notice being ready to be produced in court as and when this Honorable Court may direct.

7. Notwithstanding the notice aforesaid, the defendant herein, within six years prior to the filing of this
6 complaint has infringed said letters patent #2,109,678 by selling and offering to sell and by causing to be sold within the Northern District of Illinois, Eastern Division, and elsewhere in the United States, devices each embodying the inventions and improvements set forth and claimed in said letters patent #2,109,678, including a device that it is offering to sell and causing to be sold under the name of "Review."

8. The acts of infringement herein complained of, if continued will greatly damage plaintiff in the business carried on under said letters patent and the said acts will and do have the effect of inducing and encouraging infringement by others and plaintiff has been and still is suffering great and irreparable injury by reason of said acts of infringement.

9. The acts herein complained of have been without the authority or license of plaintiff and against the will and in violation of the rights of plaintiff, and plaintiff can have no adequate relief from said acts save in a court of equity and by a writ of injunction.

Wherefore, plaintiff prays:

(a) That the said letters patent #2,109,678, dated March 1, 1938, be decreed to be good and valid in law.

(b) That the aforesaid letters patent #2,109,678 is owned by the Ace Patents Corporation, plaintiff herein, and infringed by defendant.

(c) That the defendant, its attorneys, clerks, servants, agents, workmen, and employes, and each of them, may be perpetually enjoined and restrained by a writ of injunction issued out of and under the seal of this honorable
7 court, from directly or indirectly manufacturing, using, and/or selling, and/or causing to be manufactured, used and/or sold and/or threatening to manufacture, use and/or sell, game apparatus made in accordance with the inventions and improvements or discovery of said letters patent aforesaid and/or from in any wise infringing the said letters patent aforesaid, and/or contributing to the infringement of said letters patent, and/or conspiring with others to so infringe said letters patent in any way whatsoever.

(d) That a preliminary injunction may be granted to plaintiff against the defendant to the same purport, tenor and effect as hereinbefore prayed for in regard to said perpetual injunction.

(e) That the said defendant be ordered to account for and pay to plaintiff all his gains and profits and plaintiff's damages resulting from the infringement of said patent and in a sum in excess thereof not exceeding three times the actual damages suffered by plaintiff.

(f) That plaintiff be given such other and further relief as is proper in the premises and agreeable to equity.

(g) That plaintiff may have its just and reasonable costs and expenses incurred in this cause taxed against said defendant.

(h) That the defendant be compelled to make answer hereto, but not under oath, answer under oath being hereby expressly waived.

(i) That a subpoena be issued to said defendant requiring it to answer plaintiff's complaint as required by

law, and that a writ of injunction issue directed to said defendant as above prayed.

Ace Patents Corporation,
a corporation,
By John A. Russell.

Russell, Murphy & Pearson,
Its Attorneys,
135 South LaSalle St.

8 State of Illinois, {
County of Cook. } ss.

John A. Russell, being first duly sworn, on oath deposes and says that he is the Vice president of Ace Patents Corporation, plaintiff in the foregoing complaint; that he has read the foregoing complaint; that he has knowledge of the facts and that the allegations therein are true, except as to those matters therein stated to be alleged on information and belief, and as to those matters he believes them to be true; that he believes Nels A. Nelson to be the original, true and first inventor of the new and useful improvements described and claimed in United States Patent #2,109,678, dated March 1, 1938, that said letters patent are good and valid in law, and that it has been infringed by said defendant as alleged in said complaint.

John A. Russell,
Affiant.

Subscribed and Sworn to before me this 1st day of September, A. D. 1938.

(Seal)

Martin M. Nelson,
Notary Public.

Filed
Oct. 20,
1938.

9 And on, to wit, the 20th day of October, A. D. 1938, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Answer in words and figures following, to wit:

10 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation, a corporation,

Plaintiff,

vs.

The Exhibit Supply Company, a corporation,

Defendant.

} Equity No. 16,209.

ANSWER.

Defendant for its answer to the Bill of Complaint herein, or as much thereof as it is advised is material and necessary for it to make answer unto, says:

1.

For the purpose of this suit, the defendant admits that the Ace Patents Corporation is a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, with a regular and established place of business at 3705 Field Building, in the City of Chicago, County of Cook, and State aforesaid, and that The Exhibit Supply Company is a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, with its regular and established place of business at 4222 W. Lake Street, Chicago, Illinois, within the Northern District of Illinois, Eastern Division.

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2.

Defendant denies that it has committed any of the acts of infringement complained of in the bill of complaint filed in this cause.

3.

Defendant admits the jurisdiction of this Court.

4.

Defendant admits that a paper writing purporting to be Letters Patent No. 2,109,678, dated March 1, 1938, was issued to one Nels A. Nelson, but denies that prior to the issuance of said Letters Patent all proceedings were had and taken which were required by law to be had and taken prior to the issuance of Letters Patent for new and useful inventions.

5.

Defendant has no knowledge of the facts alleged in paragraphs 4, 5, 6, 8 and 9 of the complaint, and therefore leaves plaintiff to proof thereof, except defendant admits the receipt of the notice referred to in paragraph 6 of said complaint.

6.

Further answering the complaint herein, defendant avers, alleges and states that prior to any supposed invention or discovery by Nels A. Nelson all material and substantial parts of the contact switch for ball rolling games shown, described and claimed in Letters Patent No. 2,109,678 were well known in this country, and that the said Nels A. Nelson was not the original, and first inventor or discoverer of that which is patented by said Letters Patent No. 2,109,678, or any material or substantial part thereof, but that prior to the said alleged invention or discovery thereof the thing patented by the said Letters Patent and all material and substantial parts thereof have been patented and described in each of the following Letters Patent and publication, and that the descriptions contained in each of the same have been printed as a printed publication, the numbers of said Letters Patents, the names of the patentees, the dates when patented, the subject matter, and the publication, being as follows:

Patent No.	Patentee	Date	Title
501,777	Fisher,	July 18, 1893	Burglar Alarm
526,760	Thompson,	Oct. 2, 1894	Elec. Alarm Oper. Mech.
1,057,879	Quain,	April 1, 1913	Alarm, etc.
1,319,038	Beeler,	Oct. 21, 1919	Automatic Game App.
1,678,573	Nakashima,	July 24, 1928	Amusement Device
1,808,060	Neubeck,	June 2, 1931	Electric Switch
2,009,266	James,	July 23, 1935	Electric Switch, etc.
2,053,379	Shyvers et al.,	Sept. 8, 1936	Game
2,067,244	Rockola,	Jan. 12, 1937	Game Apparatus
2,118,037	Fischer,	May 24, 1938	Game Apparatus
the Billboard—p. 84—July 18, 1936.			

7.

Defendant upon information and belief avers, alleges and states that the said Nels A. Nelson was not the original, first inventor or discoverer of that which is patented by said Letters Patent No. 2,109,678, but that prior to the said alleged invention or discovery thereof, the thing patented by the said Letters Patent was embodied in a ball game apparatus shown under the name and to the trade as "BOLO" and manufactured by the Patent Novelty Mfg. Co. of 614 Broad Street or 1410 Lincoln Avenue, Utica, N. Y., as more fully shown and described in the Billboard publication of July 18, 1936, page 84 of said publication.

13

8.

Defendant upon information and belief alleges and states that said Letters Patent No. 2,109,678, and each and every claim set forth in said Letters Patent, are invalid and void for the reason that the said alleged invention purported to be covered by said Letters Patent is devoid of substantial novelty in view of the well known state of the art, and does not constitute patentable subject matter or invention or discovery within the meaning of the statutes, and because said Letters Patent and the claims therein set forth describe old and familiar means of common knowledge and in common use long prior to said invention thereof, and within the reach and at the disposal of any mechanic working in the art in which said

alleged invention or discovery belongs, or in analogous arts, at the time of and for many years before the alleged invention thereof, and that the details of construction represent nothing more than the mere mechanical skill commonly employed in work where the alleged invention might be utilized.

9.

Defendant having fully answered the said bill of complaint, denies that the plaintiff is entitled to relief, or any part thereof prayed for in the same, or to any relief whatsoever, and prays to be hence dismissed with its reasonable costs.

The Exhibit Supply Company,
By Clarence E. Threedy,
Its Attorney.

Chicago, Illinois, October 19, 1938.

Entered
Apr. 25,
1939.

14 And afterwards, to wit, on the 25th day of April, A. D. 1939, being one of the days of the regular April term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

15 IN THE DISTRICT COURT OF THE UNITED STATES.
• • (Caption—16,209) • •

ORDER.

This Cause Coming on to be heard on motion of the defendant to amend its answer heretofore filed in the above cause, and the Court having considered said motion and the arguments of counsel, it is hereby

Ordered, Adjudged and Decreed that the answer heretofore filed be, and the same is hereby amended as follows:

—After the last line of paragraph 6, add the following: French Pat. No. 541,079, July 22, 1922, Dabos—

After paragraph 8, add the following paragraphs:

8a. Defendant avers that the said Letters Patent No. 2,109,678 and each of the claims thereof are invalid and of no force and effect in law for the reason that the said

Nels A. Nelson, the patentee named in said patent No. 2,109,678, was not the first inventor or discoverer of the alleged improvements in said Letters Patent, but that such alleged invention and improvements were produced by others prior to the alleged invention thereof by the said Nels A. Nelson, and said improvements were in fact the invention, if any, of one Ellsworth M. Fitch of Boonville, New York.

8b. Defendant avers that the said Letters Patent No. 2,109,678 and each and every claim thereof are invalid and of no force and effect in law for the reason that the alleged improvements described and claimed in said Letters Patent do not constitute invention as contemplated by the Patent Statutes of the United States now in force, but are the mere carrying forward of that shown and described in a certain application filed in the United States Patent Office long prior to the filing of the application on which patent No. 2,109,678 issued, said certain application having been filed by Ralph Neufeld and Harry J. Mabs, Serial No. 1552, and the said application being of record in the United States Patent Office, a certified copy of said application to be produced in Court as and when this Honorable Court may require.

Dated this 25th day of April, 1939.

Entered:

Barnes,

United States District Judge.

17 And on, to wit, the 25th day of September, A. D. 1939, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Notice Under R. S. Sec. 4920 in words and figures following, to wit:

Filed
Sept. 25
1939.

18. IN THE DISTRICT COURT OF THE UNITED STATES.

* * (Caption—16,209) * *

NOTICE UNDER R. S. SEC. 4920.

To: Russell, Murphy & Pearson, 135 S. La Salle Street, Chicago, Illinois, Attorneys for Plaintiff.

Please Take Notice that at the trial of the above-entitled cause there will be offered in evidence, for the purpose of establishing prior knowledge and lack of invention and

for the purpose of anticipating and invalidating the patent in suit, the following patents, in addition to those heretofore set up in defendant's answer:

Patent No.	Patentee	Date	Title
739,010	Künzel	Sept. 15, 1903	Toy Shooting Apparatus
848,477	Michel	March 26, 1907	Registering Target
1,041,258	Ellis	Oct. 15, 1912	Self Scoring Target
1,220,420	Heffley	March 27, 1917	Game Device
1,316,792	Hanson	Sept. 23, 1919	Target Apparatus

The Exhibit Supply Company,
defendant,

By Clarence E. Threedy,
Attorney for Defendant.

Received a copy of the foregoing Notice this 25th day of September, 1939.

Russell, Murphy & Pearson,
Attorneys for Plaintiff.

Filed
Jan. 29,
1940.

19 And on, to wit, the 29th day of January, A. D. 1940, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Interrogatories Addressed to Plaintiff in words and figures following, to wit:

20 IN THE DISTRICT COURT OF THE UNITED STATES.
• • (Caption—16,209) • •

INTERROGATORIES ADDRESSED TO PLAINTIFF IN ACCORDANCE WITH RULE 33 OF THE RULES OF CIVIL PROCEDURE FOR THE DISTRICT COURTS OF THE UNITED STATES.

Now comes the defendant in the above entitled cause, by its counsel, and in accordance with Rule 33 of the Rules of Civil Procedure for the District Courts of the United States, files herein the interrogatories set out below, answer under oath to the said interrogatories being hereby waived. The facts called for in the said interrogatories are material to defendant's case and are particularly within the knowledge of the plaintiff.

Interrogatory 1.

State whether or not defendant's contact switch shown and illustrated in the drawing hereto attached and marked Defendant's Exhibit A is charged by the plaintiff to infringe any of the claims of the patent in suit.

21

Interrogatory 2.

If the answer to Interrogatory No. 1 is in the affirmative, state which of the claims of the patent in suit plaintiff will rely upon at the trial of this cause as being infringed by the contact switch shown in the said drawing, Defendant's Exhibit A.

Interrogatory 3.

State whether or not defendant's contact switch shown and illustrated in the drawing hereto attached and marked Defendant's Exhibit B is charged by the plaintiff to infringe any of the claims of the patent in suit.

Interrogatory 4.

If the answer to Interrogatory No. 3 is in the affirmative, state which of the claims of the patent in suit plaintiff will rely upon at the trial of this cause as being infringed by the contact switch shown in the said drawing, Defendant's Exhibit B.

Dated this 29th day of January, 1940, in the City of Chicago, County of Cook, and State of Illinois.

The Exhibit Supply Company,
By Clarence E. Threedy,
Its Attorney.

Received a copy of the foregoing interrogatories this 29th day of January, 1940.

Russell, Murphy & Pearson,
Attorneys for Plaintiff.

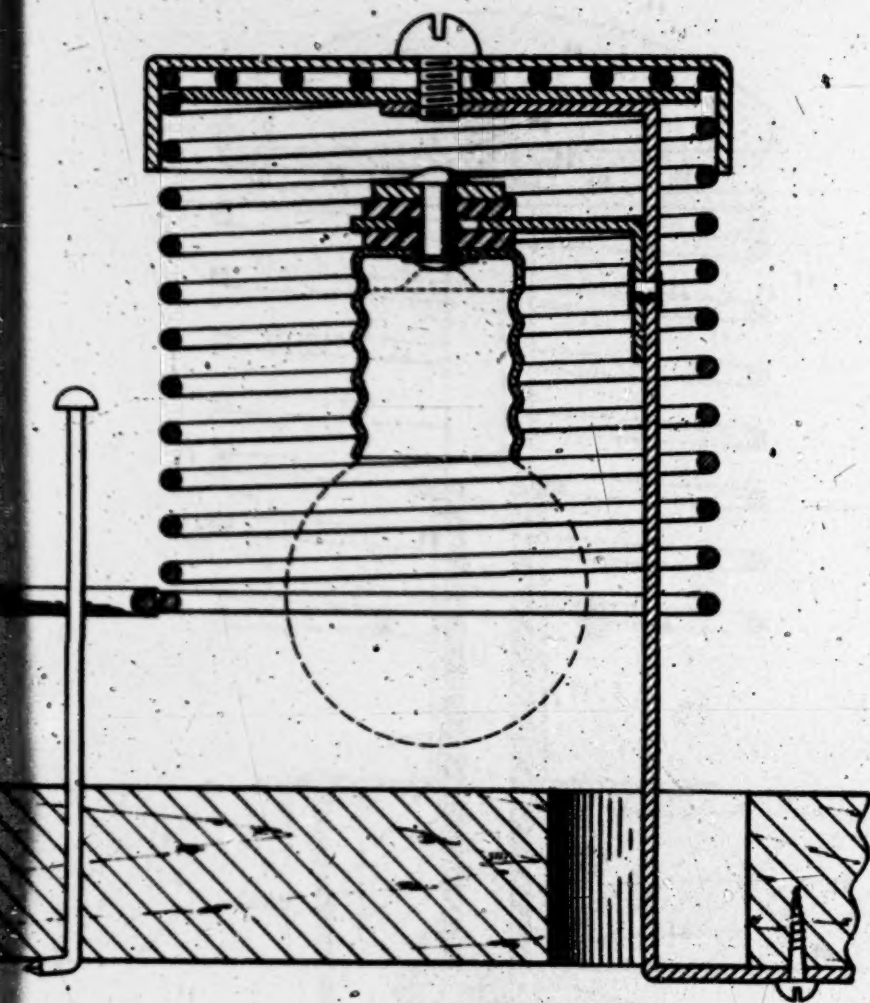


EXHIBIT SUPPLY Co. A

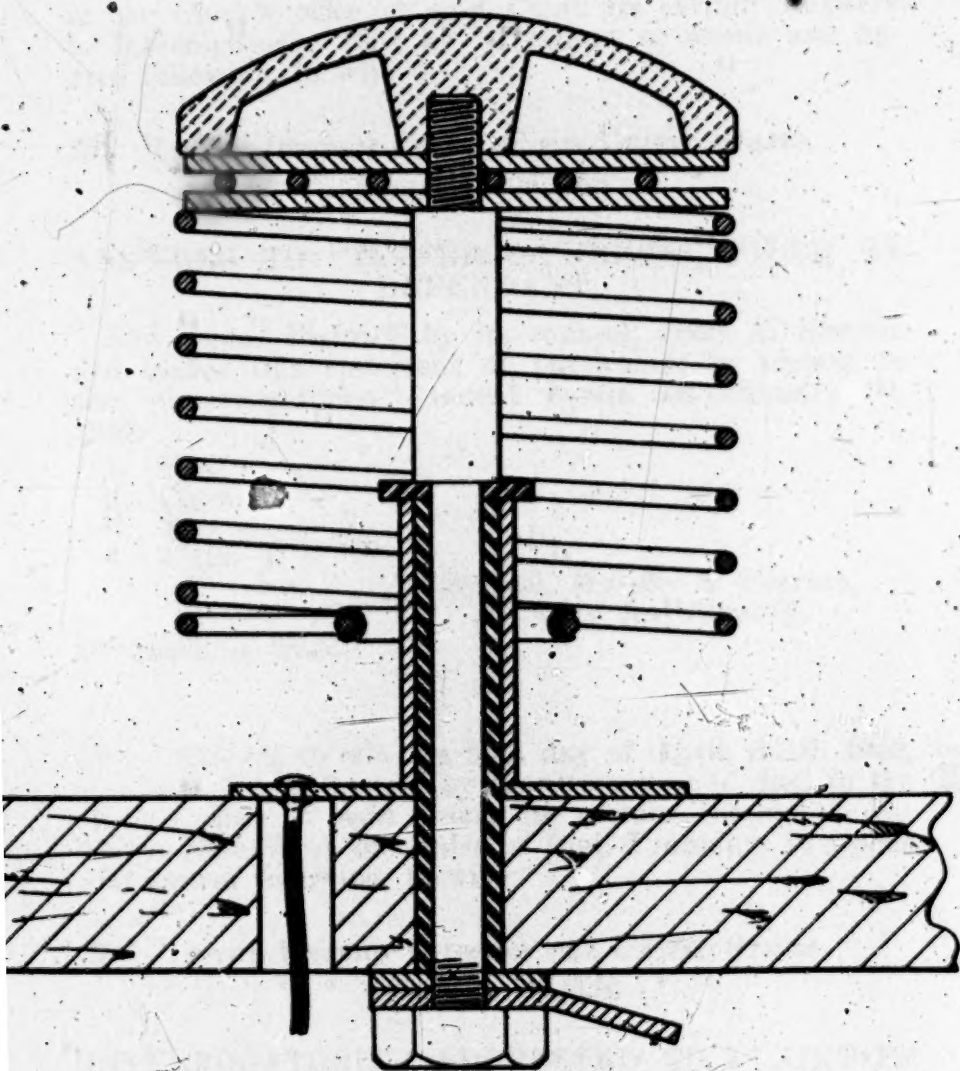


EXHIBIT SUPPLY CO. B

24 And on, to wit, the 9th day of February, A. D. 1940, came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Answers to Interrogatories filed by Defendant in words and figures following, to wit:

Filed
Feb. 9,
1940.

25 IN THE DISTRICT COURT OF THE UNITED STATES.
* * (Caption—16,209) * *

**ANSWERS TO "INTERROGATORIES" FILED BY
DEFENDANT.**

Now comes Plaintiff by its counsel, John A. Russell, and makes this statement of particulars in answer to the "interrogatories" served herein on January 29, 1940:

1. Yes.
2. Claim 4.
3. Yes.
4. Claim 4.

Russell, Murphy & Pearson,
Attorney for Plaintiff.

February 8, 1940.

26 And on, to wit, the 20th day of April, A. D. 1940, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Interrogatories Under Rule 33 of the Rules of Civil Procedure in words and figures following, to wit:

Filed
Apr. 20,
1940.

27 IN THE DISTRICT COURT OF THE UNITED STATES.
* * (Caption—16,209) * *

**INTERROGATORIES ADDRESSED TO PLAINTIFF
IN ACCORDANCE WITH RULE 33 OF THE RULES
OF CIVIL PROCEDURE FOR THE DISTRICT
COURTS OF THE UNITED STATES.**

Now Comes the defendant in the above entitled cause, by its counsel, and in accordance with Rule 33 of the Rules of Civil Procedure for the District Courts of the United States, files herein the interrogatories set out

below. The facts called for in the said interrogatories are material to defendant's case and are particularly within the knowledge of the plaintiff.

Interrogatory 1.

State whether or not defendant's contact switch shown and illustrated in the drawing hereto attached and marked Defendant's Exhibit E3 is charged by the plaintiff to infringe any of the claims of the patent in suit.

28

Interrogatory 2.

If the answer to Interrogatory No. 1 is in the affirmative, specify the claims of the patent in suit in which are alleged to be infringed by the defendant's structure illustrated in Defendant's Exhibit E3.

Dated this 17th day of April, 1940, in the City of Chicago, County of Cook, and State of Illinois.

Exhibit Supply Company,
By Clarence E. Threedy,
Its Attorney.

Received a copy of the foregoing interrogatories this 19th day of April, 1940.

Russell, Murphy & Pearson,
Attorneys for Plaintiff.

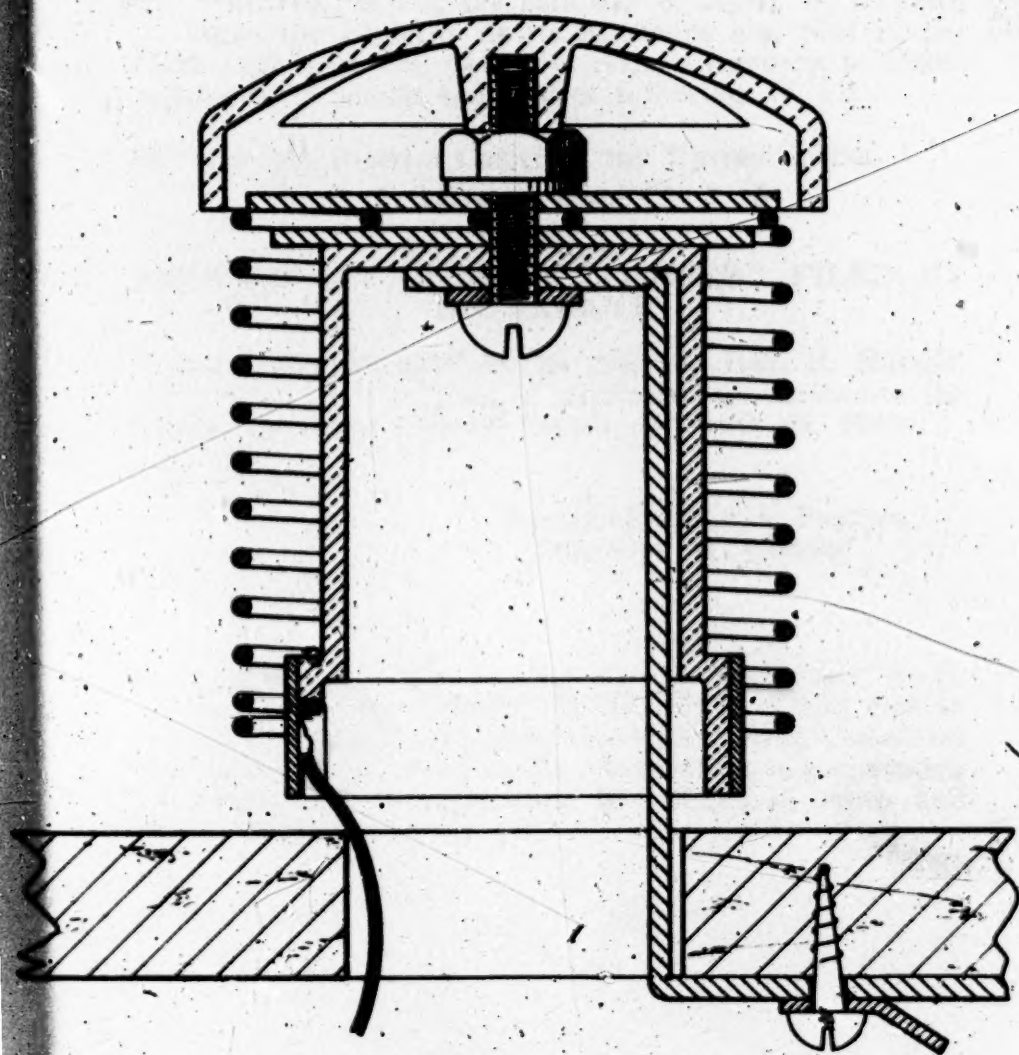


EXHIBIT SUPPLY Co. C

30 And on, to wit, the 26th day of April, A. D. 1940, came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Answers to Interrogatories in words and figures following, to wit: Filed
Apr. 26,
1940.

31 IN THE DISTRICT COURT OF THE UNITED STATES.
* * (Caption—16,209) * *

ANSWERS TO "INTERROGATORIES" FILED BY
DEFENDANT.

Now comes Plaintiff by its counsel, John R. Russell, and makes this statement of particulars in answer to the "Interrogatories" served herein on April 19, 1940:

1. Yes.
2. Claim 4.

Russell, Murphy & Pearson,
Attorney for Plaintiff.

April 25, 1940.

59 And on, to wit, the 6th day of September, A. D. 1938, came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Bill of Complaint in cause entitled: Ace Patents Corporation, a corporation vs. Genco, Inc., a corporation, No. 16,210, in words and figures following, to wit:

60 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation,
a corporation,

Plaintiff,

vs.

Genco, Inc., a corporation,
Defendant.Equity No. 16,210.
United States Letters
Patent No. 2,109,678.Filed
Sept. 6,
1938.

BILL OF COMPLAINT.

To the Honorable the Judges of the United States District Court for the Northern District of Illinois, Eastern Division:

Ace Patents Corporation, a corporation duly organized under and existing under and by virtue of the laws of the State of Illinois, and having a regular and established place of business at 3705 Field Building in the City of Chicago, County of Cook, and State of Illinois, brings this, its complaint against Genco, Inc., a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, with its regular and established place of business at 2621 North Ashland Avenue, Chicago, Illinois, within the Northern District, Eastern Division of Illinois, within which District, as well as elsewhere throughout the United States, the defendant has committed and is committing the infringing acts herein complained of.

And whereupon Plaintiff complains and says and for its complaint alleges that:

1. This suit is brought under and by virtue of the laws of the United States for infringement of letters 61 patent of the United States Number 2,109,678, granted on the first day of March, 1938.

2. Nels A. Nelson, within the statutes of the United States then in force, being the first, original and sole inventor of a certain contact switch for use in ball rolling games; or the like not known or used before his invention or discovery thereof, or patented or described in any

printed publication in any country before his invention or discovery thereof, or more than two years prior to the filing of his application hereinafter mentioned, or in public use or on sale in the United States for more than two years prior to the said application and not patented in any country foreign to the United States on an application filed by him or his legal representatives or assigns more than twelve months prior to the said application and which invention has not been abandoned to the public, did in due form and in full compliance with the statutes in such cases made and provided, on, to-wit: the 12th day of January, 1937 filed his application with the proper department of the Government of the United States for the grant to him of United States letters patent upon and for his invention aforesaid.

3. Thereupon such proceedings were had upon and pursuant to said application and in due form and in full compliance with all the requirements of the laws then in force and the Rules of Practice of the United States Patent Office, on to-wit: the 1st day of March, 1938, United States letters patent No. 2,109,678, now in full force and effect, were lawfully granted to the said Nels A. Nelson, for his said invention, said letters patent or a duly certified copy thereof being ready to be produced in court
62 as and when this Honorable Court may direct.

4. That the Plaintiff, Ace Patents Corporation, for good and valuable consideration, became and is now the owner of all the right, title and interest in and to and under said letters patent No. 2,109,678, a duly certified copy of assignments thereof being ready to be produced in court as and when this Honorable Court may direct.

5. That the plaintiff herein has expended and is now expending large sums of money in developing a demand for the said invention set forth and claimed in the said letters patent No. 2,109,678, and upon introduction of the said patented device to the trade the said patented device met with great favor and commercial success and said invention is of great benefit to and in demand by the trade, and the trade generally, with the exception of the defendant, have acknowledged and acquiesced in the rights of plaintiff under the said letters patent No. 2,109,678.

6. That prior to the filing of this complaint, plaintiff has complied with the United States Statutes in such cases made and provided, by marking the devices embodying the invention and improvements set forth and claimed in said

letters patent No. 3,109,678, "Patented" together with the date and number of the aforesaid letters patent No. 2,109,678, and in addition to the said marking, the defendant was duly notified by plaintiff that the devices herein complained of were and are an infringement of the said letters patent No. 2,109,678, a copy of said notice being ready to be produced in court as and when this Honorable Court may direct.

7. Notwithstanding the notice aforesaid, the defendant herein, within six years prior to the filing of this complaint has infringed said letters patent No. 2,109,678 by selling and offering to sell and by causing to be sold within the Northern District of Illinois, Eastern Division, and elsewhere in the United States, devices each embodying the inventions and improvements set forth and claimed in said letters patent No. 2,109,678.

8. The acts of infringement herein complained of, if continued will greatly damage plaintiff in the business carried on under said letters patent and the said acts will and do have the effect of inducing and encouraging infringement by others and plaintiff has been and still is suffering great and irreparable injury by reason of said acts of infringement.

9. The acts herein complained of have been without the authority or license of plaintiff and against the will and in violation of the rights of plaintiff, and plaintiff can have no adequate relief from said acts save in a court of equity and by a writ of injunction.

Wherefore, plaintiff prays:

(a) That the said letters patent No. 2,109,678, dated March 1, 1938, be decreed to be good and valid in law.

(b) That the aforesaid letters patent No. 2,109,678 is owned by the Ace Patents Corporation, plaintiff herein, and infringed by defendant.

(c) That the defendant, its attorneys, clerks, servants, agents, workmen, and employer, and each of them, may be perpetually enjoined and restrained by a writ of injunction issued out of and under the seal of this honorable court, from directly or indirectly manufacturing, using, and/or selling, and/or causing to be manufactured, and used and/or sold and/or threatening to manufacture, use and/or sell, game apparatus made in accordance with the inventions and improvements or discovery of said letters patent aforesaid and/or from in any wise infringing the said letters patent aforesaid, and/or contribu-

ting to the infringement of said letters patent, and/or conspiring with others to so infringe said letters patent in any way whatsoever.

(d) That a preliminary injunction may be granted to plaintiff against the defendant to the same purport, tenor and effect as hereinbefore prayed for in regard to said perpetual injunction.

(e) That the said defendant be ordered to account for and pay to plaintiff all his gains and profits and plaintiff's damages resulting from the infringement of said patent and in a sum in excess thereof not exceeding three times the actual damages suffered by plaintiff.

(f) That plaintiff be given such other and further relief as is proper in the premises and agreeable to equity.

(g) That plaintiff may have its just and reasonable costs and expenses incurred in this cause taxed against said defendant.

(h) That the defendant be compelled to make answer hereto, but not under oath, answer under oath being hereby expressly waived.

(i) That a subpoena be issued to said defendant requiring it to answer plaintiff's complaint as required by law, and that a writ of injunction issue directed to said defendant as above prayed.

Ace Patents Corporation, a corp.,

By John A. Russell.

Russell, Murphy & Pearson,

Its Attorneys,

135 South LaSalle Street.

65 State of Illinois }
County of Cook } ss.

John A. Russell, being first duly sworn, on oath deposes and says that he is the Vice president of Ace Patents Corporation, plaintiff in the foregoing complaint; that he has read the foregoing complaint; that he has knowledge of the facts and that the allegations therein are true, except as to those matters therein stated to be alleged on information and belief, and as to those matters he believes them to be true; that he believes Nels A. Nelson to be the original, true and first inventor of the new and useful improve-

ments described and claimed in United States Patent No. 2,109,678, dated March 1, 1938, that said letters patent are good and valid in law, and that it has been infringed by said defendant as alleged in said complaint.

John A. Russell,
Affiant.

Subscribed and sworn to before me this 1st day of September, A. D. 1938.

Martin M. Nelson,
Notary Public.

(Seal)

Filed
Oct. 20,
1938.

66 And on, to wit, the 20th day of October, A. D. 1938, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Answer in words and figures following, to wit:

67 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation,
a corporation,

Plaintiff,

vs.

Genco, Inc., a corporation,
Defendant.

} Equity No. 16,210.

ANSWER.

Defendant for its answer to the Bill of Complaint herein, or as much thereof as it is advised is material and necessary for it to make answer unto, says:

1.

For the purpose of this suit, the defendant admits that the Ace Patents Corporation is a corporation duly organized and existing under and by virtue of the Laws of the State of Illinois, with a regular and established place of business at 3705 Field Building, in the City of Chicago, County of Cook, and State aforesaid, and that Genco, Inc.,

is a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, with its regular and established place of business at 2621 N. Ashland Avenue, Chicago, Illinois, within the Northern District of Illinois, Eastern Division.

68

2.

Defendant denies that it has committed any of the acts of infringement complained of in the bill of complaint filed in this cause.

3.

Defendant admits the jurisdiction of this Court.

4.

Defendant admits that a paper writing purporting to be Letters Patent No. 2,109,678, dated March 1, 1938, was issued to one Nels A. Nelson, but denies that prior to the issuance of said Letters Patent all proceedings were had and taken which were required by law to be had and taken prior to the issuance of Letters Patent for new and useful inventions.

5.

Defendant has no knowledge of the facts alleged in paragraphs 4, 5, 6, 8 and 9 of the complaint, and therefore leaves plaintiff to proof thereof, except defendant admits the receipt of the notice referred to in paragraph 6 of said complaint.

6.

Further answering the complaint herein, defendant avers, alleges and states that prior to any supposed invention or discovery by Nels A. Nelson all material and substantial parts of the contact switch for ball rolling games shown, described and claimed in Letters Patent No. 2,109,678 were well known in this country, and that the said Nels A. Nelson was not the original, and first inventor or discoverer of that which is patented by said Letters Patent No. 2,109,678, or any material
69 or substantial part thereof, but that prior to the said alleged invention or discovery thereof the thing pat-

ented by the said Letters Patent and all material and substantial parts thereof have been patented and described in each of the following Letters Patent and publication, and that the descriptions contained in each of the same have been printed as a printed publication, the numbers of said Letters Patents, the names of the patentees, the dates when patented, the subject matter, and the publication, being as follows:

Patent No.	Patentee	Date	Title
501,777	Fisher	July 18, 1893	Burglar Alarm
526,780	Thompson	Oct. 2, 1894	Elec. Alarm Oper. Mech.
1,057,879	Quain	April 1, 1913	Alarm, etc.
1,319,038	Beeler	Oct. 21, 1919	Automatic Game App.
1,678,573	Nakashima	July 24, 1928	Amusement Device.
1,808,060	Neubeck	June 2, 1931	Electric Switch
2,009,268	James	July 23, 1935	Electric Switch, etc.
2,055,379	Shyvers, et al	Sept. 8, 1936	Game
2,067,244	Rockola	Jan. 12, 1937	Game Apparatus
2,118,037	Fischer	May 24, 1938	Game Apparatus

The Billboard—page 84—July 18, 1936.

7.

Defendant upon information and belief avers, alleges and states that the said Nels A. Nelson was not the original, first inventor or discoverer of that which is patented by said Letters Patent No. 2,109,678, but that prior to the said alleged invention or discovery thereof, the thing patented by the said Letters Patent was embodied in a ball game apparatus known under the name and to the trade as "Bolo" and manufactured by the Patent Novelty Mfg. Co. of 614 Broad Street or 1410 Lincoln Avenue, Utica, N. Y., as more fully shown and described in the Billboard publication of July 18, 1936, page 84 of said publication.

70

8.

Defendant upon information and belief alleges and states that said Letters Patent No. 2,109,678, and each and every claim set forth in said Letters Patent, are invalid and void for the reason that the said alleged invention purported to be covered by said Letters Patent is devoid of substantial novelty in view of the well known state of the art, and does not constitute patentable subject matter or invention or discovery within the meaning of the statutes, and because said Letters Patent and the claims therein set forth described old

and familiar means of common knowledge and in common use long prior to said invention thereof, and within the reach and at the disposal of any mechanic working in the art in which said alleged invention or discovery belongs, or in analogous arts, at the time of and for many years before the alleged invention thereof, and that the details of construction represent nothing more than the mere mechanical skill commonly employed in work where the alleged invention might be utilized.

9.

Defendant having fully answered the said bill of complaint, denies that the plaintiff is entitled to relief, or any part thereof prayed for in the same, or to any relief whatsoever, and prays to be hence dismissed with its reasonable costs.

Genco, Inc.,
By Clarence E. Threedy,
Its Attorney.

Chicago, Illinois
October 19, 1938.

71 And afterwards, to wit, on the 25th day of April, A. D. 1939, being one of the days of the regular April term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

Entered
Apr. 25,
1939.

72 IN THE DISTRICT COURT OF THE UNITED STATES.
* * (Caption—16,210) * *

ORDER.

This Cause Coming on to be heard on motion of the defendant to amend its answer heretofore filed in the above cause, and the Court having considered said motion and the arguments of counsel, it is hereby

Ordered, Adjudged and Decreed that the answer heretofore filed be, and the same is hereby amended as follows:

—After the last line of paragraph 6, add the following:
French Pat. No. 541,079 July 22, 1922 Dabos

After paragraph 8, add the following paragraphs:

8a. Defendant avers that the said Letters Patent No. 2,109,678 and each of the claims thereof are invalid and of no force and effect in law for the reason that the said Nels A. Nelson, the patentee named in said patent No. 2,109,678 was not the first inventor or discoverer of the alleged improvements in said Letters Patent, but that such alleged invention and improvements were produced by others prior to the alleged invention thereof by the said Nels A. Nelson, and said improvements were in fact the invention, if any, of one Ellsworth M. Fitch of Boonville, New York.

8b. Defendant avers that the said Letters Patent No. 2,109,678 and each and every claim thereof are invalid and of no force and effect in law for the reason that the alleged improvements described and claimed in said Letters Patent do not constitute invention as contemplated by the Patent Statutes of the United States now in force, but are the mere carrying forward of that shown and described in a certain application filed in the United States Patent Office long prior to the filing of the application on which patent No. 2,109,678 was issued, said certain application having been filed by Ralph Neufeld and Harry J. Mabs, serial No. 1552, and the said application being of record in the United States Patent Office, a certified copy of said application to be produced in Court as and when this Honorable Court may require.

Dated this 25th day of April, 1939.

Entered:

Barnes,
United States District Judge.

74 And on, to wit, the 25th day of September, A. D. 1939, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Notice under R. S. Sec. 4920 in words and figures following, to wit:

75 IN THE DISTRICT COURT OF THE UNITED STATES.
• • • (Caption—16,210) • • •

Filed
Sept. 25,
1939.

NOTICE UNDER R. S. SEC. 4920.

To: Russell, Murphy & Pearson
135 S. La Salle Street
Chicago, Illinois

Attorneys for Plaintiff.

Please Take Notice that at the trial of the above-entitled cause there will be offered in evidence, for the purpose of establishing prior knowledge and lack of invention and for the purpose of anticipating and invalidating the patent in suit, the following patents, in addition to those heretofore set up in defendant's answer:

Patent No.	Patentee	Date	Title
739,010	Klinzel	Sept. 15, 1903	Toy Shooting Apparatus
848,477	Michel	March 26, 1907	Registering Target
1,041,258	Ellis	Oct. 15, 1912	Self Scoring Target
1,220,420	Hefley	March 27, 1917	Game Device
1,316,792	Hanson	Sept. 23, 1919	Target Apparatus

Genco, Inc.,

By Clarence E. Threedy,
Its Attorney.

Received a copy of the foregoing Notice this 25th day of September, 1939.

Russell, Murphy & Pearson,
Attorneys for Plaintiff.

76 And on, to wit, the 29th day of January, A. D. 1940 came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Interrogatories Addressed to Plaintiff in words and figures following, to wit:

Filed
Jan. 29,
1940.

77

IN THE DISTRICT COURT OF THE UNITED STATES.

• • (Caption—16,210) • •

INTERROGATORIES ADDRESSED TO THE PLAINTIFF IN ACCORDANCE WITH RULE 33 OF THE RULES OF CIVIL PROCEDURE FOR THE DISTRICT COURTS OF THE UNITED STATES.

Now Comes the defendant in the above entitled cause, by its counsel, and in accordance with Rule 33 of the Rules of Civil Procedure for the District Courts of the United States, files herein the interrogatories set out below, answer under oath to the said interrogatories being hereby waived. The facts called for in the said interrogatories are material to defendant's case and are particularly within the knowledge of the plaintiff.

Interrogatory 1.

State whether or not defendant's contact switch shown and illustrated in the drawing hereto attached and marked Defendant's Exhibit A. is charged by the plaintiff to infringe any of the claims of the patent in suit.

78

Interrogatory 2.

If the answer to Interrogatory No. 1 is in the affirmative, state which of the claims of the patent in suit plaintiff will rely upon at the trial of this cause as being infringed by the contact switch shown in the said drawing, Defendant's Exhibit A.

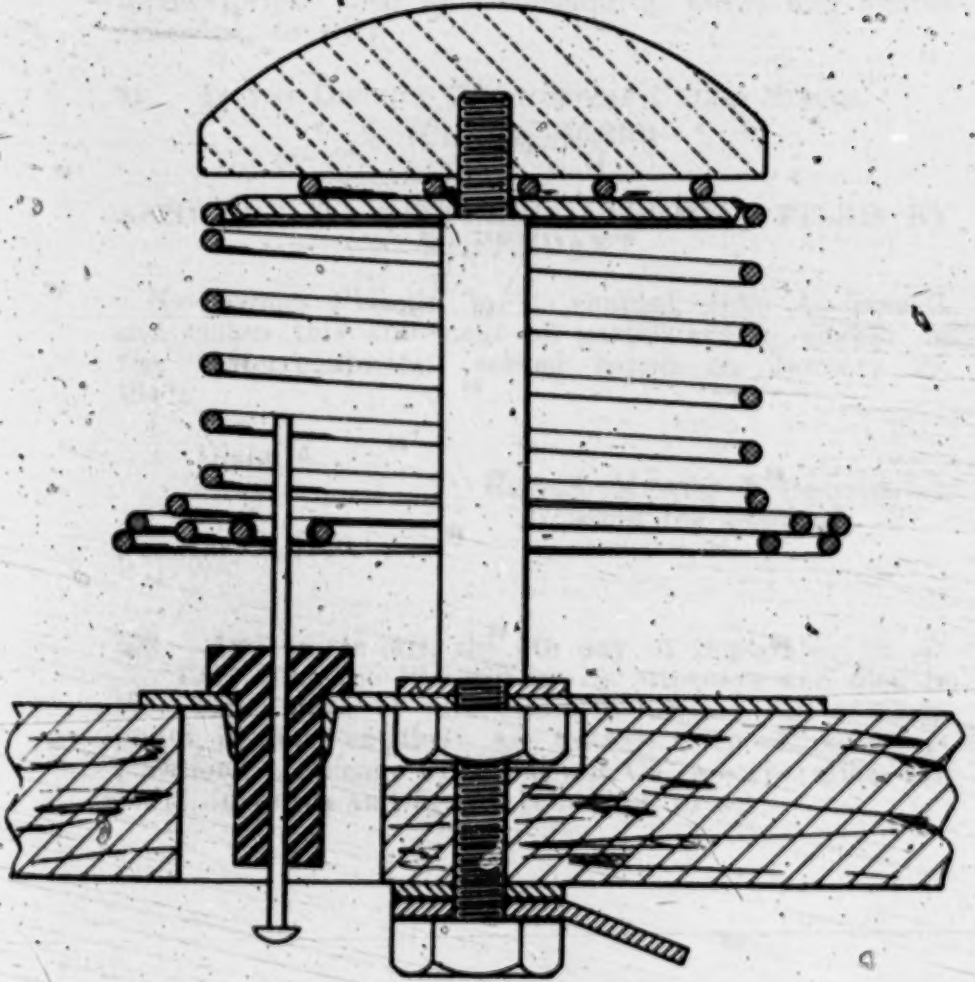
Dated this 29 day of January, 1940, in the City of Chicago, County of Cook, and State of Illinois.

• Genco, Inc.,

By Clarence E. Threedy,
Its Attorney.

Received a copy of the foregoing Interrogatories this 29th day of January, 1940.

Russell, Murphy & Pearson,
Attorneys for Plaintiff.



GENCO INC. A

80 And on, to wit, the 9th day of February, A. D. 1940, came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Answers to "Interrogatories" filed by Defendant in words and figures following, to wit:

81 IN THE DISTRICT COURT OF THE UNITED STATES.
• • (Caption—16,210) • •

ANSWERS TO "INTERROGATORIES" FILED BY
DEFENDANT.

Now comes Plaintiff by its counsel, John A. Russell, and makes this statement of particulars in answer to the "Interrogatories" served herein on January 29, 1940:

1. Yes.
2. Claim 4.

Russell, Murphy & Pearson,
Attorney for Plaintiff.

February 8, 1940.

109 And on, to wit, the 6th day of September, A. D. 1938 came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Bill of Complaint, in cause entitled: Ace Patents Corporation, a corporation *vs.* Chicago Coin Machine Co., a corporation, No. 16212, in words and figures following, to wit:

Filed
Sept. 6,
1938.

110 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation, a corporation,

Plaintiff,

vs.

Chicago Coin Machine Co., a corporation,

Defendant. }

Equity No. 16,212.
United States Letters
Patent No. 2,109,678.

BILL OF COMPLAINT.

To the Honorable Judges of the United States District Court for the Northern District of Illinois, Eastern Division:

Ace Patents Corporation, a corporation duly organized under and existing under and by virtue of the laws of the State of Illinois, and having a regular and established place of business at 3705 Field Building in the City of Chicago, County of Cook, and State of Illinois, brings this, its complaint against Chicago Coin Machine Co., a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, with its regular and established place of business at 1724 Diversey Avenue, Chicago, Illinois, within the Northern District, Eastern Division of Illinois, within which District, as well as elsewhere throughout the United States, the defendant has committed and is committing the infringing acts herein complained of.

And whereupon plaintiff complains and says and for his complaint alleges that:

111 1. This suit is brought under and by virtue of the laws of the United States for infringement of letters patent of the United States Number 2,109,678, granted on the first day of March, 1938.

2. Nels A. Nelson, within the Statutes of the United States then in force, being the first, original and sole inventor of a certain contact switch for use in ball rolling games, or the like not known or used before his invention or discovery thereof, or patented or described in any

printed publication in any country before his invention or discovery thereof, or more than two years prior to the filing of his application hereinafter mentioned, or in public use or on sale in the United States for more than two years prior to the said application and not patented in any country foreign to the United States on an application filed by him or his legal representatives or assigns more than twelve months prior to the said application and which invention has not been abandoned to the public, did in due form and in full compliance with the statutes in such cases made and provided, on, to wit, the 12th day of January, 1937 file his application with the proper department of the Government of the United States for the grant to him of United States Letters Patent upon and for his invention aforesaid.

3. Thereupon such proceedings were had upon and pursuant to said application and in due form and in full compliance with all the requirements of the laws then in force and the Rules of Practice of the United States Patent Office, on to wit, the 1st day of March, 1938, United States letters patent #2,109,678, now in full force and effect, were lawfully granted to the said Nels A. Nelson, for his said invention, said letters patent or a duly certified copy thereof being ready to be produced in court as and when this Honorable Court may direct.

112 4. That the plaintiff, Ace Patents Corporation, for good and valuable consideration, became and is now the owner of all the right, title and interest in and to and under said letters patent #2,109,678, a duly certified copy of assignment thereof being ready to be produced in court as and when the Honorable Court may direct.

5. The plaintiff herein has expended and is now expending large sums of money in developing a demand for the said invention set forth and claimed in the said letters patent #2,109,678, and upon introduction of the said patented device to the trade the said patented device met with great favor and commercial success and said invention is of great benefit to and in demand by the trade, and the trade generally, with the exception of the defendant, have acknowledged and acquiesced in the rights of plaintiff under the said letters Patent #2,109,678.

6. That prior to the filing of this complaint, plaintiff has complied with the United States Statutes in such cases made and provided, by marking the devices embodying the invention and improvements set forth and claimed in

said letters patent #2,109,678, "Patented" together with the date and number of the aforesaid letters patent #2,109,678, and in addition to the said marking, the defendant was duly notified by plaintiff that the devices herein complained of were and are an infringement of the said letters patent #2,109,678, a copy of said notice being ready to be produced in court as and when this Honorable Court may direct.

7. Notwithstanding the notice aforesaid, the defendant herein, within six years prior to the filing of this complaint has infringed said letters patent #2,109,678 by selling and offering to sell and by causing to be sold within the Northern District of Illinois, Eastern Division, 113 and elsewhere in the United States, devices each embodying the inventions and improvements set forth and claimed in said letters patent #2,109,678.

8. The acts of infringement herein complained of, if continued will greatly damage plaintiff in the business carried on under said Letters Patent and the said acts will and do have the effect of inducing and encouraging infringement by others and plaintiff has been and still is suffering great and irreparable injury by reason of said acts of infringement.

9. The acts herein complained of have been without the authority or license of plaintiff and against the will and in violation of the rights of plaintiff and plaintiff can have no adequate relief from said acts save in a court of equity and by a writ of injunction.

Wherefore, plaintiff prays:

(a) That the said letters patent #2,109,678, dated March 1, 1938, be decreed to be good and valid in law.

(b) That the aforesaid letters patent #2,109,678 is owned by the Ace Patents Corporation, plaintiff herein, and infringed by defendant.

(c) That the defendant, his attorneys, clerks, servants, agents, workmen, and employes, and each of them, may be perpetually enjoined and restrained by a writ of injunction issued out of and under the seal of this Honorable court, from directly or indirectly manufacturing, using, and/or selling, and/or causing to be manufactured, used and/or sold and/or threatening to manufacture, use, and/or sell, game apparatus made in accordance with the inventions and improvements or discovery of said letters patent aforesaid and/or from in any wise infringing 114 the said letters patent aforesaid, and/or contributing

to the infringement of said letters patent, and/or conspiring with others to so infringe said letters patent in any way whatsoever.

(d) That a preliminary injunction may be granted to plaintiff against the defendant to the same purport, tenor and effect as hereinbefore prayed for in regard to said perpetual injunction.

(e) That the said defendant be ordered to account for and pay to plaintiff all his gains and profits and plaintiff's damages resulting from the infringement of said patent and in a sum in excess thereof not exceeding three times the actual damages suffered by plaintiff.

(f) That plaintiff be given such other and further relief as is proper in the premises and agreeable to equity.

(g) That plaintiff may have its just and reasonable costs and expenses incurred in this cause taxed against said defendant.

(h) That the defendant be compelled to make answer hereto, but not under oath, answer under oath being hereby expressly waived.

(i) That a subpoena be issued to said defendant, requiring him to answer plaintiff's complaint as required by law, and that a writ of injunction issue directed to said defendant as above prayed.

Ace Patents Corporation, a corp.,
By John A. Russell.

Russell, Murphy & Pearson,
Its Attorneys.

115 State of Illinois, }
County of Cook. } ss.

John A. Russell, being first duly sworn, on oath deposes and says that he is the vice-president of Ace Patents Corporation, plaintiff in the foregoing complaint; that he has read the foregoing complaint; that he has knowledge of the facts and that the allegations therein are true, except as to those matters therein stated to be alleged on information and belief, and as to those matters he believes them to be true; that he believes Nels A. Nelson to be the original, true and first inventor of the new and useful improvements described and claimed in United States Patent #2,109,678, dated March 1, 1938, that said

letters patent are good and valid in law, and that it has been infringed by said defendant as alleged in said complaint.

John A. Russell,
Affiant.

Subscribed and sworn to before me this 1st day of September, A. D. 1938.

(Seal)

Martin M. Nelson,
Notary Public.

Filed
Oct. 20,
1938. 116 And on, to wit, the 20th day of October, A. D. 1938, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Answer in words and figures following, to wit:

117 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation, a corporation,

Plaintiff,

vs.

Chicago Coin Machine Co., a corporation,

Defendant.

} Equity No. 16,212.

ANSWER.

Defendant for its answer to the Bill of Complaint herein, or as much thereof as it is advised is material and necessary for it to make answer unto, says:

1.

For the purpose of this suit, the defendant admits that the Ace Patents Corporation is a corporation duly organized and existing under and by virtue of the Laws of the State of Illinois, with a regular and established place of business at 3705 Field Building, in the City of Chicago, County of Cook, and State aforesaid, and that the Chicago

Coin Machine Co. is a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, with its regular and established place of business at 1725 W. Diversey Blvd., Chicago, Illinois, within the Northern District of Illinois, Eastern Division.

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2.

Defendant denies that it has committed any of the acts of infringement complained of in the bill of complaint filed in this cause.

3.

Defendant admits the jurisdiction of this court.

4.

Defendant admits that a paper writing purporting to be Letters Patent No. 2,109,678, dated March 1, 1938, was issued to one Nels A. Nelson, but denies that prior to the issuance of said Letters Patent all proceedings were had and taken which were required by law to be had and taken prior to the issuance of Letters Patent for new and useful inventions.

5.

Defendant has no knowledge of the facts alleged in paragraphs 4, 5, 6, 8 and 9 of the complaint, and therefore leaves plaintiff to proof thereof, except defendant admits the receipt of the notice referred to in paragraph 6 of said complaint.

6.

Further answering the complaint herein, defendant avers, alleges and states that prior to any supposed invention or discovery by Nels A. Nelson all material and substantial parts of the contact switch for ball rolling games shown, described and claimed in Letters Patent No. 2,109,678 were well known in this country, and that the said Nels A. Nelson was not the original, and first inventor or discoverer of that which is patented by said Letters Patent No. 2,109,678, or any material or substantial part thereof, but that prior to the said alleged invention or discovery thereof, the thing patented by the said Letters Patent and all material and substantial parts

thereof have been patented and described in each of the following Letters Patent and publication, and that the descriptions contained in each of the same have been printed as a printed publication, the numbers of said Letters Patents, the names of the patentees, the dates when patented, the subject matter, and the publication, being as follows:

Patent No.	Patentee	Date	Title
501,777	Fisher	July 18, 1893	Burglar Alarm
526,760	Thompson	Oct. 2, 1894	Elec. Alarm Oper. Mech.
1,057,879	Quain	April 1, 1913	Alarm, etc.
1,319,038	Beeler	Oct. 21, 1919	Automatic Game App.
1,678,573	Nakashima	July 24, 1928	Amusement Device
1,808,060	Neubeck	June 2, 1931	Electric Switch
2,009,266	James	July 23, 1935	Electric Switch, etc.
2,053,379	Shyvers et al.	Sept. 8, 1936	Game
2,067,244	Rockola	Jan. 12, 1937	Game Apparatus
2,118,037	Fischer	May 24, 1938	Game Apparatus
The Billboard—page 84—July 18, 1936.			

7.

Defendant upon information and belief avers, alleges and states that the said Nels A. Nelson was not the original, first inventor or discoverer of that which is patented by said Letters Patent No. 2,109,678, but that prior to the said alleged invention or discovery thereof, the thing patented by the said Letters Patent was embodied in a ball game apparatus known under the name and to the trade as "Bolo" and manufactured by the Patent Novelty Mfg. Co. of 614 Broad Street or 1410 Lincoln Avenue, Utica, N. Y., as more fully shown and described in the Billboard publication of July 18, 1936, page 84 of said publication.

Defendant upon information and belief alleges and states that said Letters Patent No. 2,109,678, and each and every claim set forth in said Letters Patent, are invalid and void for the reason that the said alleged invention purported to be covered by said Letters Patent is devoid of substantial novelty in view of the well known state of the art, and does not constitute patentable subject

matter or invention or discovery within the meaning of the statutes, and because said Letters Patent and the claims therein set forth describe old and familiar means of common knowledge and in common use long prior to said invention thereof, and within the reach and at the disposal of any mechanic working in the art in which said alleged invention or discovery belongs, or in analogous arts, at the time of and for many years before the alleged invention thereof, and that the details of construction represent nothing more than the mere mechanical skill commonly employed in work where the alleged invention might be utilized.

9.

Defendant having fully answered the said bill of complaint, denies that the plaintiff is entitled to relief, or any part thereof prayed for in the same, or to any relief whatsoever, and prays to be hence dismissed with its reasonable costs.

Chicago Coin Machine Co.,
By Clarence E. Threedy,
Its Attorney.

Chicago, Illinois, October 19, 1938.

121 And afterwards, to wit, on the 25th day of April, A. D. 1939, being one of the days of the regular April term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

Entered
Apr. 25
1939.

122 IN THE DISTRICT COURT OF THE UNITED STATES.
• • (Caption—16,212) • •

ORDER.

This Cause coming on to be heard on motion of the defendant to amend its answer heretofore filed in the above cause, and the Court having considered said motion and the arguments of counsel, it is hereby

Ordered, Adjudged and Decreed that the answer heretofore filed be, and the same is hereby amended as follows:

—After the last line of paragraph 6, add the following:
French Pat. No. 541,079 July 22, 1922 Dabos—

After paragraph 8, add the following paragraphs:

8a. Defendant avers that the said Letters Patent No. 2,109,678 and each of the claims thereof are invalid and of no force and effect in law for the reason that the said Nels A. Nelson, the patentee named in said patent No. 2,109,678 was not the first inventor or discoverer of the alleged improvements in said letters patent, but that such alleged invention and improvements were produced by others prior to the alleged invention thereof by the said Nels A. Nelson, and said improvements were in fact the invention; if any, of one Ellsworth M. Fitch of Boonville, New York.

8b. Defendant avers that the said Letters Patent No. 2,109,678 and each and every claim thereof are invalid and of no force and effect in law for the reason that the alleged improvements described and claimed in said Letters Patent do not constitute invention as contemplated by the Patent Statutes of the United States now in force, but are the mere carrying forward of that shown and described in a certain application filed in the United States Patent Office long prior to the filing of the application on which patent No. 2,109,678 issued, said certain application having been filed by Ralph Neufeld and Harry J. Mabs, Serial No. 1552, and the said application being of record in the United States Patent Office, a certified copy of said application to be produced, in court as and when this Honorable Court may require.

Dated this 25th day of April, 1939.

Entered:

Barnes,
United States District Judge.

124 And on, to-wit, the 25th day of September, A. D. 1939, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Notice Under R. S. Sec. 4920, in words and figures following, to wit:

125 IN THE DISTRICT COURT OF THE UNITED STATES.
 * * (Caption—16,212) * *

Filed
 Sept. 25,
 1939.

NOTICE UNDER R. S. SEC. 4920.

To: Russell, Murphy & Pearson
 135 S. La Salle Street
 Chicago, Illinois
 Attorneys for Plaintiff.

Please Take Notice that at the trial of the above-entitled cause there will be offered in evidence, for the purpose of establishing prior knowledge and lack of invention and for the purpose of anticipating and invalidating the patent in suit, the following patents, in addition to those heretofore set up in defendant's answer:

Patent	No. Patentee	Date	Title
739,010	Künzel	Sept. 15, 1903	Toy Shooting Apparatus
848,477	Michel	March 26, 1907	Registering Target
1,041,258	Ellis	Oct. 15, 1912	Self Scoring Target
1,220,420	Heffley	March 27, 1917	Game Device
1,316,792	Hanson	Sept. 23, 1919	Target Apparatus

Chicago Coin Machine Co., Defendant,
 By Clarence E. Threedy,
Its Attorney.

Received a copy of the foregoing Notice this 25th day of September, 1939.

Russell, Murphy & Pearson,
Attorneys for Plaintiff.

126 And on, to wit, the 29th day of January, A. D. 1940, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Interrogatories Addressed to Plaintiff in Accordance with Rule 33 of the Rules of Civil Procedure for the District Courts of the United States, in words and figures following, to wit:

Filed
Jan. 29,
1940.

127 IN THE DISTRICT COURT OF THE UNITED STATES.

• • (Caption—16,212) • •

**INTERROGATORIES ADDRESSED TO PLAINTIFF
IN ACCORDANCE WITH RULE 33 OF THE RULES
OF CIVIL PROCEDURE FOR THE DISTRICT
COURTS OF THE UNITED STATES.**

Now Comes the defendant in the above entitled cause, by its counsel, and in accordance with Rule 33 of the Rules of Civil Procedure for the District Courts of the United States, files herein the interrogatories set out below, answer under oath to the said interrogatories being hereby waived. The facts called for in the said interrogatories are material to defendant's case and are particularly within the knowledge of the plaintiff.

Interrogatory 1.

State whether or not defendant's contact switch shown and illustrated in the drawing hereto attached and marked Defendant's Exhibit A is charged by the plaintiff to infringe any of the claims of the patent in suit.

128

Interrogatory 2.

If the answer to Interrogatory No. 1 is in the affirmative, state which of the claims of the patent in suit plaintiff will rely upon at the trial of this cause as being infringed by the contact switch shown in the said drawing, Defendant's Exhibit A.

Interrogatory 3.

State whether or not defendant's contact switch shown and illustrated in the drawing hereto attached and marked Defendant's Exhibit B is charged by the plaintiff to infringe any of the claims of the patent in suit.

Interrogatory 4.

If the answer to Interrogatory No. 3 is in the affirmative, state which of the claims of the patent in suit plaintiff will rely upon at the trial of this cause as being infringed by the contact switch shown in the said drawing, Defendant's Exhibit B.

Dated this 29th day of January, 1940, in the City of Chicago, County of Cook, and State of Illinois.

Chicago Coin Machine Co.,

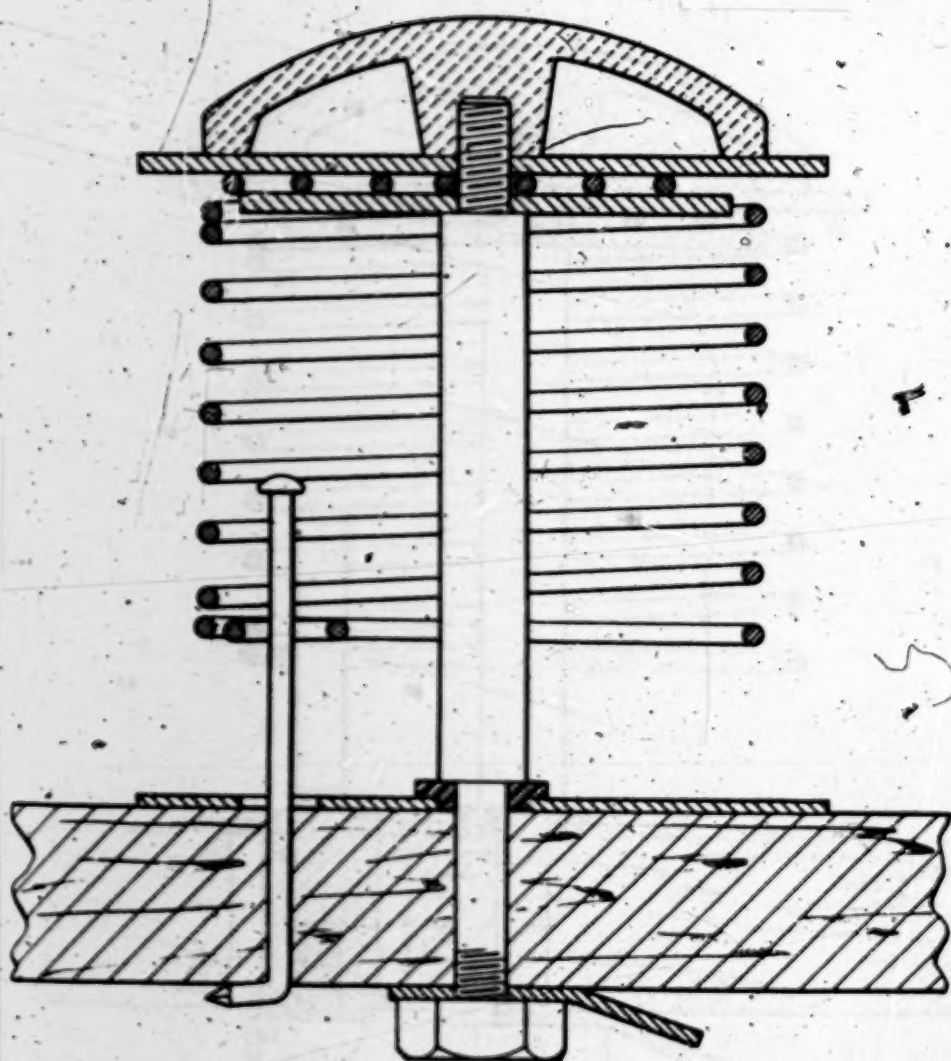
By Clarence E. Threedy,

Its Attorney.

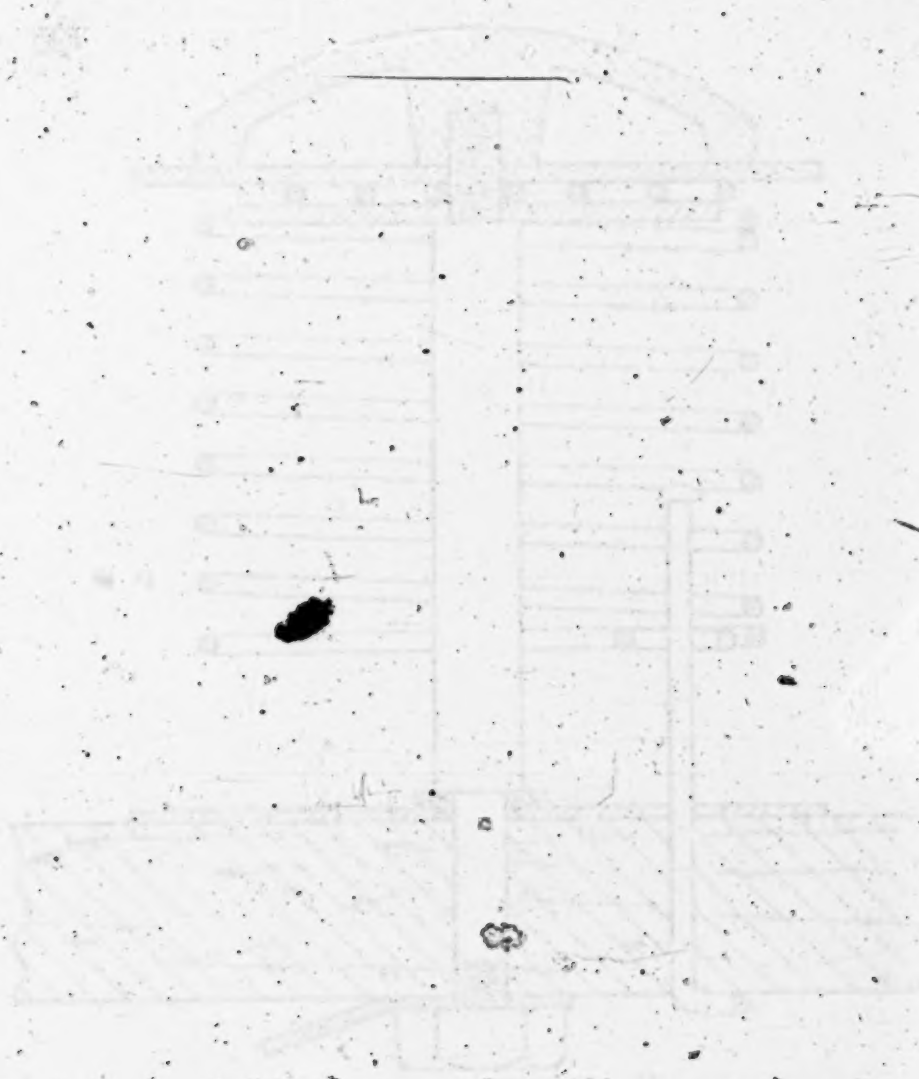
Received a copy of the foregoing interrogatories this 29th day of January, 1940.

Russell, Murphy & Pearson,

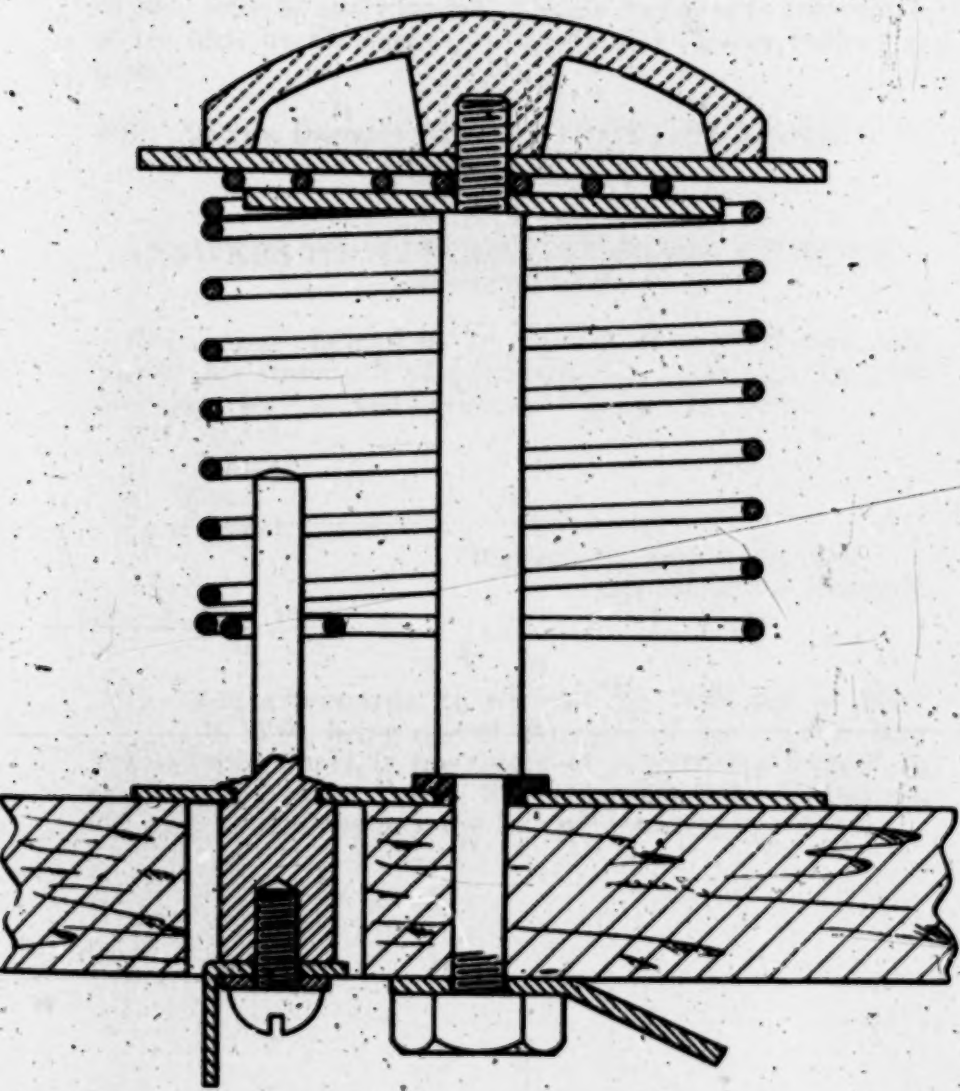
Attorneys for Plaintiff.



CHICAGO COIN MACH. CO. A



CHICAGO COIN MACH. CO. A



CHICAGO COIN MACH. CO. B

131 And on, to wit, the 9th day of February, A. D. 1940, came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Answers to Interrogatories filed by Defendant in words and figures following, to wit:

132 IN THE DISTRICT COURT OF THE UNITED STATES.
* * (Caption—16,212) * *

**ANSWERS TO "INTERROGATORIES" FILED BY
DEFENDANT.**

Now comes plaintiff by its counsel, John A. Russell, and makes this statement of particulars in answer to the "Interrogatories" served herein on January 29, 1940:

1. Yes.
2. Claim 4.
3. Yes.
4. Claim 4.

Russell, Murphy & Pearson,
Attorneys for Plaintiff.

February 8, 1940.

554 And afterwards, to wit, on the 14th day of May, A. D. 1940, being one of the days of the regular May term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

56

Order of Consolidation.

Entered
May 14,
1940.

555

IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Tuesday, May 14, A. D. 1940.

Present: Hon. John P. Barnes, District Judge.

Ace Patents Corporation,
a corporation,

vs.

The Exhibit Supply Company,
a corporation,

} Equity No. 16,209.

By agreement of the parties to this suit it is Ordered that cause entitled Ace Patents Corporation, a corporation *vs.* Genco, Inc., a corporation, No. 16210, cause entitled Ace Patents Corporation, a corporation *vs.* Chicago Coin Machine Co., a corporation, No. 16212 be and they are hereby consolidated for trial with this cause.

556 And afterwards, to wit, on the 14th day of May, A. D. 1940, being one of the days of the regular May term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

Order of Consolidation.

57

557 IN THE DISTRICT COURT OF THE UNITED STATES

May 14,
1940.

For the Northern District of Illinois,

Eastern Division.

Tuesday, May 14, A. D. 1940.

Present: Hon. John P. Barnes, District Judge.

Ace Patents Corporation,
a corporation,

vs.

Geneco, Inc., a corporation.

} Equity No. 16210.

By agreement of the parties to this suit It Is Ordered that cause entitled Ace Patents Corporation, a corporation *vs.* The Exhibit Supply Company, a corporation, No. 16209, cause entitled Ace Patents Corporation, a corporation *vs.* Chicago Coin Machine Co., a corporation, No. 16212 be and they are hereby consolidated for trial with this cause.

558 And afterwards, to wit, on the 14th day of May, A. D. 1940, being one of the days of the regular May term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

559 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Tuesday, May 14, A. D. 1940.

Present: Hon. John P. Barnes, District Judge.

Ace Patents Corporation,
a corporation,*vs.*Chicago Coin Machine Co.,
a corporation.

} Equity No. 16,212.

By agreement of the parties to this suit It Is Ordered that cause entitled Ace Patents Corporation, a corporation *vs.* The Exhibit Supply Company, a corporation, No. 16209, cause entitled Ace Patents Corporation, a corporation *vs.* Genco, Inc., a corporation, No. 16210, be and they are hereby consolidated for trial with this cause.

160 And on, to wit, the 11th day of July, A. D. 1940, there was filed in the Clerk's office of said Court a certain TRANSCRIPT OF TESTIMONY, portions of which are in words and figures following, to wit:

161 (Mr. Ooms, attorney for plaintiff:)

I would like to offer the stipulation in The Exhibit Supply Company case as Plaintiff's Exhibit 2-E, the stipulation in the Chicago Coin Machine Co. case as Plaintiff's Exhibit 2-C, and the stipulation in the Genco, Inc. case as Plaintiff's Exhibit 2-G.

(Said stipulations, so offered and received in evidence by the Court, were marked PLAINTIFF'S EXHIBITS 2-E, 2-C and 2-G, respectively.)

Mr. Ooms: I would like to offer into evidence the notice of infringement, which is in the form of a letter attached to these stipulations, as Plaintiff's Exhibit No. 3—that in the Genco case as Plaintiff's Exhibit 3-G, that in the Chicago Coin Machine Co. case as Plaintiff's Exhibit 3-C and that in The Exhibit Supply Company case

as Plaintiff's Exhibit 3-E. The letters are identical and are a form of notice dated March 17, 1938, advising the respective defendants of issuance of the Nelson patent and charging them with infringement thereof.

(Said documents, so offered and received in evidence by the Court, were marked PLAINTIFF'S EXHIBITS 3-G, 3-C and 3-E, respectively.)

Mr. Ooms: If I may have these infringing devices, your Honor, I would like to put those into evidence. They are stipulated to.

I would like to offer as Plaintiff's Exhibit No. 5 the device made, as stipulated, by Chicago Coin Machine Co., and marked on the tag as Defendants' Exhibit C-1; as Plaintiff's Exhibit No. 6 the second device made by Chicago Coin Machine Co. and marked with a tag Defendants' Exhibit C-2; as Plaintiff's Exhibit No. 7 the first device made by The Exhibit Supply Company and bearing a tag marked Defendants' Exhibit E-1; as Plaintiff's Exhibit No. 8 the second device made by The Exhibit Supply Company and bearing a tag marked Defendants' Exhibit E-2; as Plaintiff's Exhibit No. 9 the third device made by The Exhibit Supply Company and bearing a tag marked Defendants' Exhibit E-3; as Plaintiff's Exhibit No. 10 the device made by defendant Genco and bearing a tag marked Defendants' Exhibit G-1.

(Said devices, so offered and received in evidence by the Court, were marked PLAINTIFF'S EXHIBITS NOS. 5, 6, 7, 8, 9 and 10, respectively.)

Mr. Ooms: Counsel stipulates that this (indicating device) embodies the disclosure of the Nelson patent.

Mr. Threedy: Well, that is correct.

Mr. Ooms: I would like to offer that in evidence as Plaintiff's Exhibit No. 11.

(Said device, so offered and received in evidence by the Court, was marked PLAINTIFF'S EXHIBIT NO. 11.)

Mr. Ooms: As Plaintiff's Exhibit No. 4 I would like to offer the game which has been stipulated to be made by Pacent Novelty Manufacturing Company in the spring of 1937 and known as Stop 'Em. We will uncover that during one of the recesses, your Honor.

(Said game apparatus, so offered and received in evidence by the Court, was marked PLAINTIFF'S EXHIBIT NO. 4.)

Mr. Ooms: Mr. Nelson, please take stand.

NELS A. NELSON, called as a witness on behalf of the plaintiff Ace Patents Corporation, being first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Ooms.

Q. 1. Will you please state your name?

A. Nels A. Nelson.

Q. 2. How old are you, Mr. Nelson?

A. 36 years old.

Q. 3. Where do you live?

A. 5022 North Mozart, Chicago.

Q. 4. Where are you employed?

A. At the Lion Manufacturing Company, 2654 Belmont.

Q. 5. What position do you hold with that company?

A. Chief engineer.

Q. 6. Are you the Nels A. Nelson who is named in Patent No. 2,109,678?

A. That is right.

Q. 7. What are your duties at the Lion Manufacturing Company, as chief engineer?

165 A. My duties are to develop and design games, different varieties, and see that the bills of materials are made up for production.

Q. 8. What does Lion Manufacturing Company make, Mr. Nelson?

A. They are manufacturers of coin operated machines such as pin games, bowling games, photo-electric, ray target guns, Coca-Cola dispensers, various other coin operated devices.

Q. How long have you been employed there?

A. 7 years.

Q. 10. Since 1933?

A. That is correct.

Q. 11. How long have you been chief engineer?

A. About a year and a half.

Q. 12. Have you ever worked on the devices known as pin tables?

A. Yes, sir.

Q. 13. Can you tell the Court briefly the general type of devices that was in use, say, about 1932 and 1933?

A. Well, it was a table with an inclined playing board on which you shoot a ball and the table itself would have

pockets which were numbered and the pockets would have pins and hazards. The object would be to place a ball in a certain pocket, particularly one with the highest value.

Q. 14. What happened to the ball when it landed in the pocket, in those devices?

A. Well, it landed in the pocket and stayed there 166 until the insertion of another coin.

Q. 15. That would be by a subsequent player?

A. That is right.

Q. 16. How would the ball be brought onto the board for play? Have you described that?

A. It would be brought on the top of the playing board by means of a ball lifter, what we call an elevator, and then projected onto the playing board with a plunger, a ball shooter.

Q. 17. Is that elevator and plunger mechanism a familiar and standard equipment in almost all of these boards?

A. That is correct.

Q. 18. After that mechanical type of board which you have just described, what was the next general type of pin table that came into use?

A. A table of almost the same shape, and the play field would still have holes, only under the hole a switch would be mounted, which would close an electric contact showing where the ball was located.

Mr. Ooms: I have a device here which I will ask the reporter to mark Plaintiff's Exhibit No. 12.

(Said device was marked Plaintiff's Exhibit No. 12 for identification.)

Q. 19. And ask you if you can tell us what that is?

A. That is the old device of play field with the switch underneath. If a ball dropped into a hole, it would 167 close the circuit and light a light, indicating just which pocket the ball was located in.

Q. 20. Where was the switch mounted in that device, Mr. Nelson?

A. Directly under the hole at the bottom of the play field.

Q. 21. I hand you another device, which I shall have marked Plaintiff's Exhibit No. 13, and ask you if you can tell us what that is?

(Said device was marked Plaintiff's Exhibit No. 13 for identification.)

A. That is what we call a roll-over switch. The ball,

in passing over the switch, would close the contact and light a light or step up a step-up unit. The weight of the ball in passing over the switch would close the circuit.

Q. 22. Now, with respect to the first device which has the target hole in it and switch beneath the board, what can you say as to how long the ball remained in play on that board?

A. Oh, a matter of a few seconds, that is all.

Q. 23. Well, what happened to it when it struck the target?

A. In respects to the hole, it would drop in the hole and be taken out of play.

Q. 24. And with respect to the roll-over switch, what happened to the ball?

A. It would roll over the switch, make one contact, one only and then, of course, it would be possible to hit 168 another roll-over switch farther down on the board, but it could only pass one contact at a time.

Q. 25. Well, could it strike the same contact more than once during its play?

A. No.

Q. 26. Did you have experience with these two types of switches?

A. Yes, sir.

Q. 27. What can you say about them and your experience with them?

A. Well, from an operator's standpoint, they are not desirable, because they are beneath the board, they are hard to adjust, and from a player's standpoint, the ball, as it lodges in the pocket, is taken out of play immediately.

Q. 28. You said they were hard to adjust. Did those switches ever go out of adjustment?

A. They often did.

Q. 29. What might cause that?

A. Corrosion and accumulation of dirt and also, we were depending upon the weight of the ball to make a contact, and it would have to be adjusted just so. With a slight corrosion and dirt accumulated on the contact, it would not make contact and consequently not function properly.

Q. 30. When you had occasion to adjust those devices, Mr. Nelson, how would you do that?

A. We would have to remove the play field because these switches were always on the bottom of the board.

169 Q. 31. What kind of labor is employed in constructing these devices?

A. All unskilled labor.

Q. 32. What can you say of the people in the field who operate them with respect to their qualifications to handle electrical equipment?

A. Pretty much the same. Very few are skilled mechanics.

Q. 33. Will you tell us briefly, Mr. Nelson, how you came to produce the device shown in the Nelson patent and in evidence here as Plaintiff's Exhibit No. 11?

A. It was because of the difficulties we had with the old style switches, roll-over switches, and a common 2-leaf make switch, that I decided to design a surface switch that would be resilient, and by that I mean it would be possible for the ball to strike it several times and make several contacts, and because we used unskilled labor and also the men in the field are not skilled mechanics, it would have to be something that would be simple to install and easy to adjust. I hit on the idea of a coil spring, one end suspended to a shaft and the other end of the spring straightened out to form a tail to suspend through a hole in the board, this hole in the board being the other contact as is a fixed relation to the post, so that it would not require any adjustment. The spring itself would be simple to adjust by merely turning it so as the tail 170 would center through the hole.

Q. 34. Can you describe to the Court how that is done and state what it is doing when you do it, how to adjust that device when it gets out of adjustments?

A. Yes. It is detachable. The shaft is fastened to the panel, and we have here a cap and a screw which holds the spring in place, and merely by turning the spring it will center through the hole and the panel which is the other side of the contact. Now, it was also necessary in designing this, to get something that would not accumulate dirt and would not necessitate any removing of the panel and cleaning of contacts.

Q. 35. Is there any particular advantage in having the other contact point in that relation to the standard which it occupies on Plaintiff's Exhibit No. 11?

A. Well, there is an advantage for production purposes in this respect: that it is not adjustable. It is fixed, it can't go out of order, it does not necessitate any adjustment, and also being embedded in the panel, it is out of the way and does not obstruct the ball action.

Q. 36. Well, is that desirable, that the ball action be not obstructed?

A. That is right.

Q. 37. Why is the spring mounted so high above the board, Mr. Nelson? Is there any reason for that?

A. To give us flexibility, resilience, and also by putting it on the surface of the board it is visible so that anyone can by merely looking at it, tell whether it is in adjustment or not.

Q. 38. When did you begin work on that switch?

A. Back in August, 1936.

Q. 39. Where did you do your work on it?

A. In our developing department.

Q. 40. Of Lion Manufacturing Company?

A. Of Lion Manufacturing Corporation.

Q. 41. Did you have any work done outside the plant on it?

A. Later on, yes.

Q. 42. Where was that?

A. At the Accurate Spring.

Q. 43. Where are they located?

A. At Lake Street, some place, I don't remember the exact address.

Q. 44. In Chicago?

A. In Chicago, here in Chicago.

Q. 45. What did you have them do for you?

A. I had them make me samples.

Q. 46. When did you put switches of this kind on a board?

A. Oh, about September of 1936, I had samples made.

Q. 47. Did Lion Manufacturing Company ever go into production on them?

The Witness: What was the question?

172 Mr. Ooms: Q. 47. Did Lion Manufacturing Company ever go into commercial production of those devices?

A. Yes, sir.

Q. 48. When was that?

A. December of 1936.

Q. 49. Have they made any great number of them?

A. Yes; they have made several thousand, in the last three or four years, on an average of—

Q. 50. Have you had anything to do with that production?

A. No, sir.

Q. 51. Your work is purely experimental and design?

A. That is right.

Q. 52. You mentioned that you later on, that is, after you first devised this switch, had somebody at Accurate spring Company make same springs for you. Can you name the gentleman who worked for you there or not?

A. Yes, Mr. Campbell, the production manager of the Accurate Spring made those first samples for me.

Mr. Ooms: That is all, Mr. Nelson.

The Court: We will take a short recess, gentlemen, (Whereupon a short recess was taken.)

The Court: You may proceed.

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Cross-Examination by Mr. Threedy.

XQ. 53. Mr. Nelson, where do you say you are employed?

A. Lion Manufacturing Corporation.

XQ. 54. And what is the address of the Lion Manufacturing Corporation—you say?

A. That is right.

XQ. 54. (Continued.) What is it?

A. 2654 Belmont.

XQ. 55. And what is the business of the Lion Manufacturing Corporation?

A. We are manufacturers of toy operative devices, pin bames, bowling alleys, ray target guns, Coca-Cola dispensers and several other coin operated devices.

XQ. 56. Is there any other company connected with the Lion Manufacturing Corporation?

A. Not to my knowledge.

XQ. 57. Did you ever hear of the Bally Manufacturing Company?

A. That is true. It is the same firm.

XQ. 58. You say the Bally Manufacturing Company and the Lion Manufacturing Corporation are the same?

Mr. Russell: I object. This is just an employee he is asking with reference to the corporate status. We will stipulate to that, if you want the facts.

Mr. Threedy: I would just like to get the companies where he is employed.

174 Mr. Russell: The facts.

Mr. Threedy: I would just like to get the companies where he is employed.

Mr. Russell: He testified he is employed by the Lion Manufacturing Corporation.

Mr. Ooms: We are willing to stipulate that Bally Manufacturing Company is a corporation which is the sales corporation affiliated with them.

The Court: Is that satisfactory with you?

Mr. Threedy: Well, I would like to know if this witness is employed by Bally Manufacturing Corporation.

The Court: He may answer, if he knows.

The Witness: Employed by the Lion Manufacturing Corporation.

Mr. Threedy: XQ. 59. You are not employed by the Bally Manufacturing Company?

A. (Continuing.) Which, as far as I know, is all the same.

XQ. 60. Now, you stated on direct examination that you are employed by the Lion Manufacturing Corporation, is that correct?

A. That is right.

XQ. 61. And I ask you, now, if you are employed by the Bally Manufacturing Company?

Mr. Russell: If you know.

A. Well, as far as I know, it is the the same organization.

175 Mr. Threedy: XQ. 62. And on the theory, it would be safe to say, that the two companies being the same, that you are employed by the Bally Manufacturing Company, is that correct?

A. That is correct.

XQ. 63. Now, what has been your experience, if any, in the designing of bagatelle games, particularly the type that we refer to as the ball rolling games?

A. My experience—my chief duties, rather, have been to design and develop something new and something different.

XQ. 64. To what extent has your experience been in this particular field that we refer to?

A. I have been a developing engineer with the firm for the last 5 years; the last year and a half as Chief engineer.

XQ. 65. And that has been in connection with bagatelle games, is that correct?

A. That is correct.

XQ. 66. So, in view of that fact you are then fa-

miliar with the field to which the bagatelle games relate, is that correct?

A. That is right.

XQ. 67. Do you make it your business to ascertain what new articles and products are being put out in connection with bagatelle games?

A. That is right.

XQ. 68. So that you would have a general knowledge of the extent of such new articles or devices used in connection with bagatelle games, the extent of their use, is that correct?

A. That is right.

XQ. 69. Now, let us refer to Defendants' Exhibit No. 12, which includes the contact switch on what is called a shuffle board slidable beneath a table. Do you know generally to what extent switches of that type have been used in the bagatelle industry?

A. They have been used a great deal.

XQ. 70. Would you say to a great extent?

A. To a great extent, that is right.

XQ. 71. Now, with reference to Defendants' Exhibit 12, when the ball passes into the opening, it is a fact, is it not, that the switch is closed by the action of that ball, is that right?

A. That is correct.

XQ. 72. Now, refer to Plaintiff's Exhibit No. 11, which exemplifies as you stated, I believe, the device of the patent in suit. Is it likewise not a fact that when the ball engages the spring or impinges against the spring, the switch of that device is likewise closed?

A. That is right.

XQ. 73. Now, refer to Plaintiff's Exhibit No. 13. State, if you can, to what extent the switch of Plaintiff's Exhibit 13 has been used.

A. It has been used in a minor capacity.

177 XQ. 74. How many switches such as exemplified in Plaintiff's Exhibit No. 13 are used in a game apparatus?

A. No set amount. You could use one or several on a play field.

XQ. 75. Now, where there are several used on a playing field and the ball travels over one of the switches, is the ball out of play or is it still gravitated downward on the table?

A. It is still gravitated toward the bottom.

XQ. 76. Now, in the course of your experience and particularly in gleaning knowledge as to the different developments in the bagatelle industry, did you come into contact with any other types of switches other than Plaintiff's Exhibits Nos. 12 and 13?

A. —Yes.

XQ. 77. What particular type do you have in mind?

A. Well, I have seen practically any kind of a switch or all that have been used in the market.

XQ. 78. Did you come into contact and gain knowledge of a switch embodied in a game called "Bolo"?

A. Yes, sir.

XQ. 79. You are familiar with that type of switch structure, are you?

A. Yes, sir.

XQ. 80. I am referring to the Bolo type switch structure.

A. Yes, sir. I am familiar with it.

178 XQ. 81. Now, referring to Plaintiff's Exhibit

No. 11. I notice mounted in the annular contact ring that is embedded in the board another ring, that is a carbon ring, is it not?

A. That is correct.

XQ. 82. What is the purpose of that carbon ring?

A. To enable us to use a higher voltage and still keep the spring and the brass ferrule from arcing and welding themselves together.

XQ. 83. In other words, where a higher voltage is used, is it correct to state that there is an arcing if the carbon ring is omitted? Is that correct?

A. That is possible, yes.

XQ. 84. Does the depending leg of the spring of Plaintiff's Exhibit No. 11 ever pit against the carbon?

A. No.

XQ. 85. Would it pit against the—is that a brass ring embedded?

A. That is a brass ferrule.

XQ. 86. Would it pit against the brass ferrule of Plaintiff's Exhibit No. 11?

A. Possibly, and if it would accumulate dirt and get dirty.

XQ. 87. Yes, and what would result? What would be the result when the pit would form on the metal ring?

A. It would not make a good contact.

179 XQ. 88. Now, you are familiar with the disclosure of your patent, are you, Mr. Nelson?

A. That is right.

XQ. 89. Now, will you refer to Fig. 2 of the patent in suit and state whether or not you find associated with the metal ferrule of the device there shown a carbon ring?

A. No. The carbon ring is not shown here, because we did not use it at first.

XQ. 90. Yes. Now, why didn't you use it at first?

A. Well, it was a later development. It was not necessary, but we found it to be an improvement.

XQ. 91. But you did find that in the use of the metal ferrule in its contact with the depending leg 19 of the patent, that pit was formed, is that right, on the ring?

A. Yes.

XQ. 92. And as a result, the contact would become faulty, is that correct?

A. That is correct.

XQ. 93. And to overcome that, you subsequently mounted in the ring the carbon ring, is that right?

A. That is correct.

XQ. 94. Now, assuming that the solder connections on Plaintiff's Exhibit No. 11 become detached, isn't it a fact that it is necessary to remove the board from the cabinet?

A. That is correct.

180 XQ. 95. In order to get at those contacts?

A. That is right.

XQ. 96. That would also be true, Mr. Nelson, would it not, if the post or standard supporting the spring became loose?

A. That is correct.

XQ. 97. So that it would be possible in one adjusting the coil spring of Plaintiff's Exhibit No. 11, in order to properly adjust the depending leg 19 with respect to the ferrule, to loosen the nut which anchors the standard to the board, is that right?

A. No.

XQ. 98. Why not?

A. Because the spring is held on top and the contact is made on the bottom. The shaft itself is held securely to the board with a nut on the bottom of the play field and that is where the contact is made to the shaft.

XQ. 99. Yes, but one could accidentally, could they not, in tightening the nut that you see at the top of the standard or post, loosen the nut which anchors the post to the board, is that right? That could happen?

A. That could happen, yes.

XQ. 100. And when that did happen, it would be necessary to remove the board carrying the standard from the cabinet, in order to tighten it up, is that right?

A. No. It could be tightened from the surface 181 with a pair of pliers. It still could be tightened on the face.

XQ. 101. Now, you stated that you were familiar with bagatelle games and particularly contact switches. In your opinion, Mr. Nelson, would you say that in 1932-1933 it was old in the art to use as an objective a coil spring?

The Witness: What was the question?

(Question read by the reporter.)

Mr. Threedy: XQ. 101. (Continuing) Referring to an objective as a target.

A. Well, dating ~~that~~ far back, we didn't have any coil springs on the play field.

XQ. 102. Prior to the filing—prior to your alleged invention, was it old to use coil springs as an objective or target on a game board or device that we refer to?

A. Not to my knowledge.

XQ. 103. I want to refer your attention to a book of prior art patents that I will ask the reporter to mark for identification as Defendants' Exhibit No. 26.

(Said book of patents was marked as Defendants' Exhibit No. 26 for identification.)

Mr. Threedy: It is already marked.

XQ. 103. (Continuing) I am going to ask you, Mr. Nelson, to look at Fig. 3 and state what the element marked by the pencil "X" is indicated as such?

A. "X" is a coil spring.

182 XQ. 104. What is the date of the Fischer patent?

A. May 24, 1938, filed June 24, 1935.

XQ. 105. Now, do you see such springs in Fig. 3 of the Fischer patent No. 2,118,037?

A. That is right.

XQ. 106. Would you mark them with the letter X? Just a lead line. Just mark the letter X on them.

(Whereupon the witness complied with the request of Mr. Threedy.)

Mr. Threedy: May I ask the reporter to mark this spring element for the purpose of identification as Defendants' Exhibit No. 40?

(Said spring element was thereupon marked Defendants' Exhibit No. 40 for identification.)

Mr. Threedy: XQ. 107. I hand you, Mr. Nelson, a spring that is marked Defendants' Exhibit No. 40, and I will ask you to state whether or not you ever had knowledge of the use of such a spring in connection with bagatelle games prior to any claimed invention by you of the invention here in suit?

A. We used a spring similar to that, but not by means of making an electrical contact.

XQ. 108. Yes. Then, it is correct to state that in the bagatelle industry they did use as a target or objective coil springs?

183 A. That is right.

XQ. 109. And that was prior to any claim by you of the invention in suit, is that right?

A. That is right.

Mr. Threedy: I hand you, your Honor, a book of prior art patents in which the Fischer patent is shown, and I have turned it to the particular pages referred to by the witness.

XQ. 110. Now, referring back to Plaintiff's Exhibit No. 11, what is the purpose of embedding the ferrule in the board of table?

A. To simplify production and also adjustment. Once it is located in its proper place, it can never come out of adjustment; it is fixed.

XQ. 111. Now, I believe that in the patent in suit, either in the objects or in the specification, it is stated that the spring 18 may be engaged by the ball from any angular direction.

A. That is correct.

XQ. 112. Now, with that in mind, if the pins of Plaintiff's Exhibit No. 11 projected above the board, would it be possible for the ball to engage the spring from all angular directions?

A. Yes, that is right.

XQ. 113. It would be possible?

A. Yes, sir.

XQ. 114. Would the ferrule interfere with the
184 movement of the ball toward the spring at the point where the ferrule is located?

A. No, sir.

XQ. 115. Assuming now on Plaintiff's Exhibit No. 11 the ferrule is, let us say, a trifle shorter in height than the depending leg; would you say under those conditions that the ferrule would interfere with the ball engaging the spring?

A. Not if it is behind the outer circle of the spring, no.

XQ. 116. Well, explain now, how the ball would contact the spring at the point where the depending arm hangs down from the spring, assuming that the ferrule is extended above the board to a height just short of the under or lower convolution of the spring.

A. Well, if the ball were to strike there at that point, you would lose some of the flexibility or resilience in the spring.

XQ. 117. Well, isn't it a fact that the ball would strike the ferrule and not the spring?

A. Well, it might touch the ferrule, but it wouldn't stop, it would not stop the ball.

XQ. 118. But at any rate, the ferrule is embedded for the one purpose of disposing the ferrule from the path of movement of the ball, is that correct?

A. No, it is primarily to simplify adjustments, to 185 put it in a fixed location in regards to the post.

XQ. 119. What post do you mean?

A. The posts suspending or supporting the bumper spring.

XQ. 120. Now, on Plaintiff's Exhibit No. 11, if the ferrule extended just short of the lower convolution of the spring and the ball was moving in the direction that I indicate by the arrow, would the ball engage the spring or the ferrule?

A. It would engage the ferrule.

XQ. 121. And when engaging the ferrule, it would not, of course—

A. Contact.

XQ. 121. —Contact the spring?

A. No, sir.

XQ. 122. So that it is correct to state that under those conditions, the ball, then, could not engage the spring of Plaintiff's Exhibit No. 11 from all angular directions, is that right?

A. That is right.

XQ. 123. Now, what is the purpose of the spring, the coil spring of Plaintiff's Exhibit No. 11, Mr. Nelson?

A. Well, to give us a more flexible contact and make it possible, with the ball in rolling against it, it would bounce away and hit it once or several times.

XQ. 124. Anything else?

186 A. In other words, it would get the one or several contacts and thereby give us a wider scoring range, and add to the appeal of the game.

XQ. 125. Anything else?

A. Well, also as I stated before, it would simplify adjustment and production.

Mr. Threedy: That is all, if your Honor please.

Mr. Ooms: There are just a few questions, Mr. Nelson.

Redirect Examination by Mr. Ooms.

RDQ. 126. You were asked about your employment. Whose checks do you get on pay day?

A. Lion Manufacturing Corporation.

RDQ. 127. Is the carbon ring which you find in Plaintiff's Exhibit No. 11 an electric conductor?

A. That is right.

RDQ. 128. And supposing you used voltages of 6 volts in that circuit, would you have any difficulty in pitting—

A. Yes.

RDQ. 128. —in the brass ferrule?

A. Yes, we would.

RDQ. 129. With 6 volts?

A. Yes.

RDQ. 130. With smaller voltages?

187 A. Yes, sir.

RDQ. 131. Would you have? What is that?

A. Yes, sir, we would have trouble. In fact, with the least little bit of dirt, on a voltage as low as that, it would not make a good contact.

RDQ. 132. So, why do you use a higher voltage?

A. To eliminate the possibilities of arcing and dirt accumulation.

RDQ. 133. Supposing you used a silver or platinum ferrule in it, would you have any difficulty of pitting, then?

A. No, sir.

Mr. Ooms: That is all.

I would like, now, to offer the two devices identified by the witness, as Plaintiff's Exhibits Nos. 12 and 13.

The Court: They may be received. J

(Said devices, so offered and received in evidence by the Court, were marked Plaintiff's Exhibits Nos. 12 and 13, respectively.)

(Witness excused).

188 LYLE F. CAMPBELL, called as a witness on behalf of the plaintiff Ace Patents Corporation, being first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Ooms.

Q. 1. Will you please state your name?

A. Lyle F. Campbell.

Q. 2. How old are you, Mr. Campbell?

A. 30 years of age.

Q. 3. Where do you live?

A. 226 Berry Parkway, Park Ridge, Illinois.

Q. 4. Where are you employed at the present time?

A. At the American Molded Products Company.

Q. 5. Do you have any official position with that company?

A. Secretary and treasurer.

Q. 6. How long have you been with that company?

A. About a year.

Q. 7. Where were you employed before that?

A. By the Accurate Spring Manufacturing Company.

Q. 8. What was your position there?

A. Production manager.

Q. 9. How long were you employed at Accurate Spring Company?

A. About four and a half years.

189 Q. 10. Would you give us the approximate dates covering that interval?

A. From about July of 1933 until January of 1938.

Q. 11. What were your duties there as production manager?

A. I was in full charge of production in every respect, with the exception of the tool room.

Q. 12. Did you have anything to do with the manufacture of springs?

A. Practically everything.

Q. 13. Did you ever have occasion to do experimental work on springs?

A. I had several occasions to do that. In fact, that was one of my duties.

Q. 14. With whom would you normally carry on that activity?

A. With salesmen of our organization and employees of our various customers.

Q. 15. Did you ever do any work with Nels A. Nelson who has just testified?

A. I did.

Q. 16. Do you recall when that was?

A. That was in the fall of 1936.

Q. 17. Please tell the Court what you did with it and how the contact originated and just what was done, will you?

A. Mr. Nelson brought some sketches of some spring ideas to our plant and requested that we make him 190 some samples, which was done according to my instructions to the operator. Samples were given to Mr. Nelson and later, slight change was made and subsequently we went into production of the finished article.

Q. 18. Did you make springs like those on Plaintiff's Exhibit No. 11 there, the red cap devices before you?

A. We did.

Q. 19. When did you go into production on those?

A. That was in the winter of 1936.

Q. 20. Do you know approximately what month? Approximately?

A. The month of November, November or December.

Q. 21. Did Accurate Spring Manufacturing Company make any quantity of those?

A. They made a considerable quantity of those springs.

Q. 22. For whom did you make those?

A. The Lion Manufacturing Company and later on various other pin table manufacturers.

Q. 23. Did you ever make any for Pacent Novelty Manufacturing Company?

A. We did.

Q. 24. When was that?

A. That was in the spring of 1937.

Q. 25. Do you know how that business was initiated?

A. We received the purchase order from Pacent Novelty Manufacturing Company, accompanied by a sample of the spring identical with the spring shown here, 191 the spring here, and we were instructed to make springs exactly like that with the exception of substituting

phosphor bronze wire instead of the steel wire we had been using.

Q. 26. Can you examine that Plaintiff's Exhibit No. 11 and tell us what that spring is made of?

A. I can probably tell by scratching it.

Q. 27. Would you like to have a file to scratch it?

A. I think a pocket knife or the file would be better.

(Witness scratches on Plaintiff's Exhibit No. 11 by the use of a file.)

That was made of steel wire, if I removed all the surface tin here.

Q. 28. What do you say it is?

A. It appears to be steel wire.

Q. 29. Did you ever make any of those springs of phosphor bronze?

A. We did.

Q. 30. For whom?

A. Pacent Novelty Manufacturing Company.

Q. 31. We have in the court room here, Mr. Campbell, a game known as "Stop 'Em", which we have stipulated was made by Pacent Novelty Manufacturing Company, and I would like to have you remove one of those springs and just make the same examination as you made of the spring in Plaintiff's Exhibit No. 11. Will you make the same 192 test of that spring, taken from the game "Stop 'Em," Plaintiff's Exhibit No. 4?

A. (Witness scratches said spring by use of a file.)

That appears to be phosphor bronze.

Q. 32. You say that appears to be phosphor bronze?

A. Yes, sir.

Q. 33. How can you tell?

A. Well, by the copper color, and there is another method of testing, which is bending, of course, which is much softer than steel wire.

Q. 34. From your tests, what is that spring made of, what is your opinion?

A. It is my opinion that it is phosphor bronze spring wire.

Q. 35. Do you recognize that particular spring?

A. I feel certain it is a spring that we manufactured for Pacent Novelty Manufacturing Company.

Q. 36. When with respect to the time you went into production for Lion Manufacturing Company did you make these phosphor bronze springs for Pacent Novelty Manufacturing Company?

A. I would say about three or four months after making springs for Lion Manufacturing Company.

Q. 37. When you testified as to when this business with Pacent Novelty Manufacturing Company was initiated, and they sent you a sample of a spring, I believe you said it was identical with that in Plaintiff's Exhibit No. 11. Did you identify that spring?

193 A. It was identical to the springs we had made for Lion Manufacturing Company.

Q. 38. Had you previous to that time made springs of that type?

A. Yes, we had, at the Lion Manufacturing Company.

Q. 39. Previous to the time you received the sample from Pacent Novelty Manufacturing Company?

A. Yes.

Q. 40. But previous to the time you went into production of this spring which was, I think you said, in November, 1936, had you made springs of this kind?

A. Never.

Q. 41. Were you familiar with what your competitors were doing in the industry?

A. We were.

Q. 42. Was anybody making springs of that kind?

A. Not to my knowledge.

Q. 43. Do you know when others first began to make springs of that kind?

A. I couldn't say definitely, but I imagine it was about, oh, a year after we had been making them.

Q. 44. There was an interval when you made practically all the springs of that kind that were used, is that true?

A. That is correct.

Q. 45. You said, I believe, that Accurate Spring 194 Company manufactured a considerable quantity of those springs. What do you mean by that, hundreds, or just what figure?

A. Well, I should say hundreds of thousands.

Mr. Ooms: I would like to offer the phosphor bronze spring removed from Plaintiff's Exhibit No. 4, as Plaintiff's Exhibit No. 14.

The Court: It may be received.

(Said phosphor bronze spring, so offered and received in evidence by the Court, was marked PLAINTIFF'S EXHIBIT NO. 14.)

Mr. Ooms: That is all, Mr. Campbell.

Cross Examination by Mr. Threedy.

XQ. 46. Mr. Campbell, you referred to a sketch which was given to you or brought to you by Mr. Nelson in connection with the manufacture of a spring or design of a spring, I believe.

A. Yes, sir.

XQ. 46. (Continuing.) Do you have that sketch with you now?

A. No, I don't.

XQ. 47. When did the Pacent Novelty Manufacturing Company first communicate with you regarding the manufacturing of springs? Now, when I say "you" I mean the Accurate Spring Company.

195 A. Sometime during 1936.

XQ. 48. 1936?

A. Yes.

XQ. 49. Do you know approximately when?

A. I imagine—it was my recollection that it was in the spring, in the spring or summer.

XQ. 50. Are you the Mr. Campbell who was, on or about April 3rd of this year, in this court room with a letter file examining the letters with one Mr. Martin Nelson, one of the attorneys for the plaintiff?

A. I am.

XQ. 51. Do you recall having seen, in among those letters, a letter that was addressed to the Accurate Spring Company during the month of January, 1936?

A. I don't recall, as I did not pay any particular attention to the dates, but I do remember there were several letters in there in 1936.

XQ. 52. And these letters all pertained, or most of them pertained to request regarding the manufacture of springs?

Mr. Ooms: I object to the question with respect to the contents of the letters. I think they should be produced—

The Court: Sustained.

Mr. Threedy: XQ. 53. Do you have those letters with you, Mr. Campbell?

A. I do not.

196 XQ. 54. Do you know where those letters are, now?

A. No, sir.

Mr. Threedy: I would like to serve notice, if your Honor please, and if it is proper, upon counsel for plaintiff to produce the file of letters to which I referred.

Mr. Ooms: We do not have it and we have never had it. The witness from Accurate Spring Company was here in the court room.

Mr. Threedy: That is right.

Mr. Ooms: (Continuing.) At a previous call of this case, with the letters. The file was examined here and as far as we know, the witness can come back. The file of letters is in possession of the Accurate Spring Company or their counsel. I have never seen them.

Mr. Russell: That is correct. The file was sent back to the Accurate Spring Company. It is either there or in possession of the attorney for Accurate Spring Company. I never had it. I served a subpoena on it, and we agreed to examine it here in the court room one day when the case was last on the trial call. It is either in possession of the Accurate Spring Company or the attorneys for the Accurate Spring Company, or one of the officers of the company who was here then.

Mr. Threedy: I think we can simplify the whole matter by asking the question of this witness again. I may have asked it.

197 XQ. 55. To the best of your knowledge, Mr. Campbell, when was the first contact either by letter or otherwise, made by your company, the Accurate Spring Company, with the Pacent Novelty Manufacturing Company concerning the manufacture of springs?

A. To the best of my knowledge it was in the year 1936. I seem to recall it was in the spring.

XQ. 56. In the spring of that year. Now, I believe you stated on direct examination that the Accurate Spring Company sold the springs which are embodied in the device of Plaintiff's Exhibit No. 11 to other manufacturers of bagatelle games, is that correct?

A. That is correct.

XQ. 57. In other words, anyone that wanted to buy a spring of that type could buy from the Accurate Spring Company, is that right?

A. Yes.

XQ. 58. Now, you say you are familiar with the use of the spring such as embodied in Plaintiff's Exhibit No. 11?

A. I am not familiar with the actual working of the spring. I know the function of the spring on the board.

XQ. 59. Yes. Do you know the use of it, though, to which it is to be put? How is it to be employed?

A. To my knowledge, it would be employed as a 198 contact and as an object which has resilience and flexibility that will allow the ball to hit against it, make a contact and probably rebound and contact again.

XQ. 60. Now, this type of spring to which we are referring and which is embodied in the device, Plaintiff's Exhibit No. 11, was that ever sold by the Accurate Spring Company for any other use other than an objective or target?

A. Not to my knowledge.

Mr. Threedy: That is all, if your Honor please,

Mr. Ooms: Did you ask the witness about your little one?

Mr. Threedy: No. May I ask the witness just one question, if your Honor please?

Mr. Ooms: That is all right; on that one?

Mr. Threedy: Yes.

XQ. 61. I want you to look at the spring marked Defendants' Exhibit No. 40. Do you recognize that spring as having been manufactured by the Accurate Spring Company?

A. I recognize it as identical with springs we manufactured in the past.

XQ. 62. You do, you say?

A. Yes, sir.

XQ. 63. During what period of time, or beginning when, rather?

A. About 1935.

Mr. Threedy: Go ahead.

RDQ. 64. Calling your attention, Mr. Campbell, to Defendants' Exhibit No. 40, do you know how that was mounted on these pin boards?

A. I have seen this spring in pin tables throughout the country mounted with a nail driven through the two ends of the spring, securing it to the board.

RDQ. 65. The spring was not pendantly suspended as in Plaintiff's Exhibit No. 11?

A. No. The nail went through the top loop, through the bottom small loop right into the board.

RDQ. 66. And did Accurate Spring Company make any other types of springs for pin tables in the years 1935, 1936 and 1937?

A. Yes, they made various other types.

RDQ. 67. There were a large number of different types of springs?

A. A considerable number.

RDQ. 68. Do you recall whether you sold any springs to Pacent Novelty Manufacturing Company other than this Plaintiff's Exhibit No. 14?

A. Yes. We sold Pacent Novelty Manufacturing Company various extension springs, long lengths of extension springs and a small spring such as you have there, and several different designs.

200 Mr. Ooms: That is all.

The Court: We will recess at this time until 2 o'clock, gentlemen.

Whereupon a recess was taken until 2 o'clock P. M. of the same day, Tuesday, May 14, 1940.

201 Ace Patents Corporation, a corporation,	}	No. 16,209
<i>vs.</i> The Exhibit Supply Co., a corporation.		

Ace Patents Corporation, a corporation,	}	No. 16,210
<i>vs.</i> Genco, Inc., a corporation.		

Ace Patents Corporation, a corporation,	}	No. 16,212
<i>vs.</i> Chicago Coin Machine Co., a corporation.		

Before Hon. John P. Barnes, Judge.

Tuesday, May 14, 1940,
2 o'clock P. M.

Trial resumed pursuant to recess.

Present:

Mr. Russell,
Mr. Nelson,
Mr. Ooms;
Mr. Threedy.

The Court: Will this case take all day tomorrow?

Mr. Ooms: No, your Honor. I understand that the dep-

ositions are not going to be read in and that your Honor is going to read them.

The Court: Yes.

202 Mr. Ooms: We will finish sometime during the day tomorrow.

The Court: What does the attorney for the defendants say?

Mr. Threedy: I suggest that probably it will take most of the day tomorrow.

Mr. Ooms: Mr. George Moloney, will you take the stand.

GEORGE D. MOLONEY, called as a witness on behalf of the plaintiff Aet Patents Corporation, being first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Ooms.

Q. 1. Will you state your name, please?

A. George D. Moloney.

Q. 2. How old are you, Mr. Moloney?

A. 32.

Q. 3. Where do you live?

A. 6209 North Mozart, Chicago, Illinois.

Q. 4. What is your occupation?

A. Vice-president and general manager of the Lion Manufacturing Corporation.

Q. 5. What does that company do?

A. We manufacture coin operated devices such as pin games, miniature bowling, coin operated miniature bowling alleys, merchandise vendors and other coin operated devices.

203 Q. 6. Some question was brought up here this morning about the relationship of Bally Manufacturing Company to Lion Manufacturing Company. Will you tell us briefly what that is?

A. Lion Manufacturing Corporation is the parent corporation and Bally Manufacturing Company is the sales organization.

Q. 7. It is an independent corporation? It is a corporation?

A. That is correct.

Q. 8. Separately incorporated?

A. Yes, it is.

Q. 9. What are your duties as vice-president of Lion Manufacturing Company?

A. I supervise production, sales, general office work.

Q. 10. We have here in the court room, Mr. Moloney, a machine, the first one on the counter which bears the name "Bumper," can you tell us what that is?

A. Well, that is one of our coin operated pin games.

Q. 11. Whom was that made by?

A. That was made by our company.

Q. 12. The Lion Manufacturing Company?

A. The Lion Manufacturing Company.

Q. 13. Do you recall when you began manufacturing those machines?

A. The exact date I believe was December 18, 1936.

Q. 14. Do you know when it was released for production in your organization?

204 A. On December 7, 1936.

Q. 15. What, if anything, did you have to do with that machine before it became a production, a matter of actual production in your plant?

A. Well, in about August of 1936, our engineering department had been experimenting with different types of games that might have had more player appeal than the games that we had been having at that time; business had slowed down considerably, so there was a great deal of activity in our engineering department to develop a table with more player appeal.

Q. 16. What types of tables were you making at that time?

A. Tables having holes in them, where the ball would be shot on the playing field and come to rest on a little switch in the hole and thereby causing a score in that way, depending on what hole the ball was arrested in.

Q. 17. Had you made any of those that had the electrical switches in them?

A. Yes, we had.

Q. 18. Where were the switches located in those balls?

A. Usually on the bottom of the panel.

Q. 19. You have produced here another machine, a cabinet, Mr. Moloney, that bears the name "Skyscraper." Is that one made by Lion Manufacturing Company?

A. Yes, it is.

205 Q. 20. Do you recall when you made those?

A. I believe that particular game was made prior to the time I was with the company.

Mr. Ooms: Your Honor, do you want those brought any closer for examination at this time?

The Court: No. I can step down there, whenever you want me to.

Mr. Ooms: There isn't any point in our playing them. We want to bring those in to make the record complete.

Q. 21. Well, calling your attention to August, 1936, what occurred at that time in connection with the games the Lion Manufacturing Company was making?

A. At that particular time, I went back to the engineering department with Mr. Ray Moloney, the president of the Lion Corporation, to inspect a new type of a device to be used on the playing surface of the game, a coiled spring bumper. It was mounted on just a small piece of wood, and when I got back there I think Mr. Nelson was running a ball against the bumper. The ball would hit the bumper, bound back again and hit it again. Of course, it was not hooped up electrically at that time, and I asked what was to be done with it. He said they were going to hook it up so that each time the ball hit the bumper, it would cause a contact; and I immediately realized the player appeal, the tremendous player appeal that a game featuring that particular device would bring about.

Q. 22. What next happened in connection with that device?

A. Well, then, a complete table was made probably a couple of weeks afterwards; I don't recall just exactly how many days passed by, but it was about two weeks, and that game was played and I played it, the engineers played it, and then we were more than ever completely sold on the sales possibility of that particular game. It certainly had more appeal than anything we had produced up to that time.

Q. 23. Then, you went into production, I think you said in December, 1936?

A. After developing the first game, the sample game, I believe we developed two or three more models, we made releases on them and started manufacturing the game in about December, and on December 7th, the parts for the game, the bills for material, and started in production, or I believe the first game was built in production December 18, 1936, and we sent out our usual samples to our various distributors, and the game was immediately acknowl-

edged as a success by our distributors and ultimate users of the game.

Q. 24. How long did you continue to make that game known as "Bumper"?

A. We made the game in heavy production until about April of 1937, that is, the Bumper game.

Q. 25. Did you make other games bearing different 207 names that had this spring device of Plaintiff's Exhibit No. 11 mounted upon the playing board?

A. We are still making games, using that particular bumper spring.

Q. 26. You make them under other names than "Bumper", do you not?

A. Yes, we do.

Q. 27. Do you have with you any of the production records of your organization to show us how many of those you made?

A. Of the "Bumper" game?

Q. 27. (Continuing.) Yes. Start first with the one called "Bumper" and then your subsequent games under different names that had the same type of scoring bumper on them.

A. Of that Bumper game there, we made 18,970.

Q. 28. And what is the next type? What was the next named game that involved that same scoring bumper?

A. We made a game called "Carom."

Q. 29. How many of those did you make?

A. 3,198.

Q. 30. In how long a period?

A. I will have to refer to my records on that, now. We started producing that game on February 16th and continued to produce them until about May of 1937.

Q. 31. To what records are you referring there?

A. These records that I have here are the daily 208 production records showing the totals of games made on any particular day and the quantity released on any given day and carried forward accumulatively.

Q. 32. Do you have those for all the games that you made which involved this device of Plaintiff's Exhibit No. 11 with you?

A. Yes, sir, I have.

Q. 33. Now, have you prepared any summarizing data from which we can tell very briefly how many machines you made in various intervals, say up to the end of the year 1936, then during the full year of 1937, during the full

year of 1938 and during the full year of 1939 and the first four months of 1940?

A. Yes, sir, I have.

Q. 34. Could you give us that summary, by years?

A. In the year 1936 we produced 30,000 games.

Q. 35. In what year was that?

A. In the year of 1936.

Q. 36. And how many of those were of this Bumper type?

A. We just started manufacturing the Bally Bumper in the middle of December, 1936, 906 of that 30,000 in that year.

Q. 37. Now, do you have some tabulation there, in which I think you have gathered all the data with respect to all of these years and all of the machines?

A. Yes.

209 Q. 38. Can you read the annual totals of that for us, of the Bumper type games produced by Lion Manufacturing Company?

A. I believe I would have to do a little tabulating.

Q. 39. You have a tabulation which you showed me just before you took the witness stand.

A. Oh, this here (indicating document).

Mr. Ooms: Yes.

The Witness: I beg your pardon.

Mr. Ooms: Q. 39. (Continuing.) Showing the annual totals of this type of game?

A. In 1936, we made 906 games using the bumper spring; in 1937, we made 36,769, using the bumper spring; in 1938, 20,337; in 1939, 16,177; and up to and including April 30, 1940, 3,893.

Q. 40. Do you have a total for the entire period since December 18, 1936, to and including April 30, 1940?

A. Yes, sir, I have.

Q. 41. What is that total?

A. The exact total is 78,082.

Q. 42. Those were all games of the so-called bumper type that incorporated as hazards the device which I hold in my hand, Plaintiff's Exhibit No. 11?

A. Yes.

Q. 43. Now, how many of these obstacles such as is mounted upon Plaintiff's Exhibit No. 11 were found 210 on each of those games?

A. The number varied from 12 as the minimum and went as high as 22, but usually between 12 and 18.

Q. 44. At the time you went into the production of this type of game on December 18, 1936, what was the condition of your business in manufacturing of pin tables?

A. Well, business had been very much in the doldrums and we contemplated either closing up or getting out of the pin game business, until we made that game. Of course, it was an immediate stimulus to the whole industry.

Q. 45. Now, as I understand it, you have in your hands there all the production records relating to games of this type for the periods since December 18, 1936?

A. Yes.

Q. 46. And that data is all summarized upon that one sheet, which I will ask to have marked Plaintiff's Exhibit No. 15, is that correct?

(Whereupon said document was marked as Plaintiff's Exhibit No. 15.)

A. Yes.

Q. 47. Have you examined your records and verified the data on Plaintiff's Exhibit No. 15?

A. Yes, sir, I have.

Q. 48. I hand you another pamphlet which is headed Daily Production from October 1, 1936 to April 30, 1937. Will you tell us what that is?

A. This is a daily release and production report, which is made up every day at the close of the day's business, indicating the number of games released on that particular day, showing the number produced on that particular day and keeping a running total.

Q. 49. Is that of all your games or of certain types?

A. All of our games.

Q. 50. Now, have you taken the data found in that production record from October, 1936 to April, 1937, and had a graph made from that?

A. Yes, I did.

Q. 51. Will you kindly examine this graph, which is marked Plaintiff's Exhibit No. 16, and referring to the colored lines, references—or describe for the Court what it represents?

(Said graph was marked Plaintiff's Exhibit No. 16.)

A. This graph is drawn in three colors. The brown line indicates the last game of the type before we manufactured "Bumper", the old type game.

The green line indicates the Bumper type game, and

the black line represents the total of all games produced at that particular time.

The highest point reached by the "Preakness" game in a day's production was right at about this point here (indicating), indicating slightly less than 150 games 212 produced per day.

The black line, which is a total of all games, in November, November 11th I believe, the black line goes as high as 160 games. That did not, of course, include any Bumper type games. Then, the green line which indicated the Bumper type game, on about February the 24th I believe, reached the high point of approximately 700 games in one day's production and, of course, it can be seen that at the time we started the manufacture of the "Bumper" game, production increased daily until it reached this point on the graph (indicating).

Q. 52. How did your sales and advertising activities with respect to the "Bumper" games compare with your sales and activity prior to that time, your sales and advertising activities?

A. Just about the same.

Q. 53. Did you do any advertising of the "Bumper" game?

A. Yes, we did.

Q. 54. How did the price of that Bumper type game compare with the price on similar games, at that time, similar games of your manufacture?

Mr. Threedy: I believe that is objectionable, if the Court please. I do not see what bearing it has on the prima facie case of the plaintiff.

The Court: Well, I suppose the purpose is to show 213 commercial success.

If one side shows commercial success due to advertising, having paid a lot of money for advertising—

Mr. Ooms: We are anticipating—

The Court: —you can show it.

Mr. Ooms: We are anticipating that, in view of the decisions in this Circuit.

Was that question answered?

The Court: No.

Mr. Ooms: Q. 54. (Continuing) How did the price compare with similar novelty games that you were manufacturing at that time?

A. I should say that it was 15 per cent higher than

the games we had been manufacturing prior to that, approximately 15 per cent.

Q. 55. Do you recall what the unit price of the Bally Bumper was when you offered it in December, 1936?

A. \$64.50, I believe.

Mr. Ooms: What is that?

The Witness: \$64.50.

Mr. Ooms: Q. 56. I return to you some copies of The Billboard magazine which you handed to me yesterday and I would like to have you examine those, Mr. Moloney, if you will, and point out to the Court just a few of the typical ads that appeared about that time, not only of yourself but of some of the defendants here and your 214 other competitors, with respect to this type of game.

A. This is one of our ads (indicating) dated December 19, 1936, showing a cut of our Bally "Bumper" game, which at the time we were introducing right with the game called "Pockets".

Q. 57. What magazine did that appear in?

A. That appeared in The Billboard magazine.

Q. 58. Does that show the "Bumper" game which you have identified here in the court room?

A. Yes, it does.

Q. 59. Does it show the structure which is found on this board, Plaintiff's Exhibit No. 11 that I have shown you?

A. Yes, it does.

Mr. Ooms: I would like to have that marked Plaintiff's Exhibit No. 17.

(Whereupon said advertisement appearing in the issue of December 19, 1936, of The Billboard magazine, was marked Plaintiff's Exhibit No. 17.)

Mr. Ooms: Q. 60. Will you now page through those subsequent issues, Mr. Moloney, and merely indicate a few in which this bumper was featured, whether by yourself or somebody else?

A. January 9th was another of our ads much the same as I just showed you.

Q. 61. That is the January 9th issue of The Billboard, on page 82?

215 A. Page 82.

On page 116 of the January 16, 1937 issue of The Billboard, there is an ad, not showing a cut. The ad is placed by the Chicago Coin Corporation advertising a game called "Bump-A-Lite". In this particular issue, it

does not show the cut of the game, but I believe the subsequent issues will show that "Bump-A-Lite" was a game using the same type of bumper as used in our game "Bumper."

Mr. Ooms: I would like to have marked page 116 of The Billboard of January 16, 1937, as Plaintiff's Exhibit No. 18.

(Whereupon page 116 of The Billboard magazine of January 16, 1937, was marked Plaintiff's Exhibit No. 18.)

The Witness: On January 23, 1937, on page 96 of The Billboard there was an ad by the Pacific Amusement Manufacturing Company of Chicago, showing a cut of a game using the same bumper spring as used on our Bally Bumper.

Mr. Ooms: Q. 62. Do they describe that game there?

A. Yes, they describe it exactly like this. I will read from the ad:

"Furnished in bumper-type Novelty Model with two-way scoring—plus the popular idea of matching lights." But they picture the "Bumper"—they use the name "Bumper" in the ad.

216 Q. 63. Is there another ad in that same issue?

A. Yes, there is, by the Chicago Coin Corporation, in which they feature a game called "Live Wire", which is a combination game with bumper springs and holes. They feature the bumper springs in their ad.

Mr. Ooms: I would like to have those two pages marked—page 96 of The Billboard of January 23, 1937, as Plaintiff's Exhibit No. 19, and as Plaintiff's Exhibit No. 20 page 87 of the same issue.

(Said pages 96 and 87 of the issue of The Billboard of January 23, 1937, were marked as Plaintiff's Exhibits Nos. 19 and 20, respectively.)

The Witness: On page 98 of The Billboard dated February 6, 1937, we have a larger cut of the Bally Bumper game and in our ad we of course feature the bumper.

Mr. Ooms: Q. 64. You say you feature it. What does the ad have in it that is distinctive?

A. It has a cut, a large cut of our Bally Bumper itself, with the coil spring.

Q. 65. Is that the one with the man sitting on the spring?

A. Yes.

Q. 66. Is there something else in addition to which you want to call attention?

A. Well, there is another reference to "Live Wire" built by Chicago Coin Corporation in which they feature the Bumper again. Their ad states: "The 5 Ball Novelty Game with Bumper Springs"; they feature the words "Bumper Springs" in their ad.

Mr. Ooms: I would like to have marked page 98 of The Billboard of February 6, 1937, as Plaintiff's Exhibit No. 21.

(Whereupon page 98 of The Billboard magazine of the issue of February 6, 1937, was marked Plaintiff's Exhibit No. 21.)

Mr. Ooms: Q. 67. I would like to call your attention, Mr. Moloney, to an advertisement appearing on page 87 of The Billboard of February 20, 1937, of the J. H. K. & Co. Will you please point out what is particularly significant about that advertisement in connection with this bumper spring subject?

A. In this particular ad, they show a cut of a bumper spring and feature it. They call it a Spiral Spring in this particular ad and it is exactly the same as the bumper spring that we used on our "Bumper" game.

Mr. Ooms: I would like to have that page 87 of The Billboard issue of February 20, 1937, marked as Plaintiff's Exhibit No. 22.

(Whereupon page 87 of The Billboard issue of February 20, 1937, was marked Plaintiff's Exhibit No. 22.)

Mr. Ooms: Q. 68. I now call your attention to an advertisement appearing on page 93 of the February 27, 1937 issue of The Billboard, an advertisement bearing the name "Chicago Coin Corp.", and ask you to point out anything that is particularly significant in that advertisement, in connection with this controversy.

A. They also feature the Bumper spring, stating that their new game called Bump-A-Lite—I beg your pardon—the new game is "Home Run", and they feature a cut of the Bumper spring as used on our "Bumper" game.

Mr. Ooms: I would like to have that advertisement appearing on page 93 of The Billboard of February 27, 1937, marked as Plaintiff's Exhibit No. 23.

(Whereupon page 93 of The Billboard issue of February 27, 1937, was marked Plaintiff's Exhibit No. 23.)

Mr. Ooms: Q. 69. And in the same connection I would like to have you identify, if you will, pages 87, 93 and 98 of The Billboard of March 20, 1937. Will you tell us

briefly what appears there that is relevant to this discussion?

A. In the ad of Bally Manufacturing Company, our company March 20, 1937 announced the new game called "Bally Booster" and show a picture, a cut of the game and feature the bumper coil; and on page 93 is a game called "Wizard" by Genco, Inc., featuring, as they say in their ad, "This Irresistible New Bumper Type Game".

Q. 70. Do they show a cut of the bumper there?

219 A. No. They do not show a cut of the bumper but it can be seen on the cut of the game.

Q. 71. Will you point out the third ad in that issue that I have called attention to?

A. "Home Run" by Chicago Coin Corporation seems to be a duplicate of the cut that we had in other issues of The Billboard magazine picturing the Bumper spring.

Q. 72. Does that have a separate cut of the Bumper spring?

A. It has a separate cut of the Bumper spring.

Mr. Ooms: I would like to have those pages marked, page 87 of The Billboard of March 20, 1937, as Plaintiff's Exhibit No. 24; page 93 of the same issue as Plaintiff's Exhibit No. 25, and page 98 of the same issue as Plaintiff's Exhibit No. 26.

(Whereupon pages 87, 93 and 98 of The Billboard issue of March 20, 1937, were marked as Plaintiff's Exhibits Nos. 24, 25 and 26, respectively.)

Mr. Ooms: Q. 73. Other than this advertising of the "Bumper" game by your company and others, did this new obstacle or Bumper spring as you call it receive any other recognition or distinction?

A. Yes. We received a trophy, that is, it was given to Mr. Ray Moloney, the president of Lion, and congratulating him upon the success of the new Bumper spring.

Q. 74. When was that given to Mr. Moloney?

A. I don't recall the exact date, but I believe it was 220 in February or March of 1937.

Q. 75. Who were the donors of this, do you recall?

A. Yes, a group of suppliers in the industry, kind of an informal association of various suppliers.

Q. 76. (Mr. Ooms hands object to the witness.) Is that a replica of this Bumper spring on the top of the monument?

A. Yes, it is.

Q. 77. That has been in the custody of your company for several years, has it?

A. Yes, since 1937.

Mr. Ooms: I would like to have that marked as Plaintiff's Exhibit No. 27.

(Said object was marked Plaintiff's Exhibit No. 27.)

Mr. Ooms: Your Honor will note that that is a large sized, heavy metal replica of the device.

I would like to have marked the "Bally Bumper" game identified by the witness as Plaintiff's Exhibit No. 28.

(Whereupon said "Bally Bumper" game apparatus was marked as Plaintiff's Exhibit No. 28.)

Mr. Ooms: And I would like to have marked the "Skyscraper" game identified by the witness as Plaintiff's Exhibit No. 29.

(Whereupon said "Skyscraper" game apparatus was marked as Plaintiff's Exhibit No. 29.)

Mr. Ooms: Q. 78. You have mentioned that you 221 made 78,000 of these machines. Do you know what the dollar value of those were made by the Lion Manufacturing Company?

A. In the neighborhood of \$6,000,000.00.

Q. 79. Do you know what is going on in the industry, in your capacity as vice-president of the Lion Manufacturing Company?

* A. Yes, I believe that I do.

Q. 80. Do you know about what part of the total industry in these bumper spring games your company made?

A. I believe that we made—we produce about 35 per cent.

Mr. Ooms: That is all, Mr. Moloney.

Cross-Examination by Mr. Threedy.

XQ. 81. Mr. Moloney, when did you first become vice-president of the Lion Manufacturing Company?

A. I believe that was in 1938.

XQ. 82. In the year of 1938. What part of the year 1938?

A. I don't recall the exact date.

XQ. 83. Would you say the latter part, the middle part or the early part of 1938?

A. I believe it was the early part of 1938.

XQ. 84. Then, in 1936 you were not vice-president of the Lion Manufacturing Company, is that correct?

A. That is correct.

222 XQ. 85. That would also apply to the year of 1937, is that right?

A. I believe so.

XQ. 86. Now, this sheet, Plaintiff's Exhibit No. 15 that was compiled, was it, from records of Lion Manufacturing Company?

A. Yes, it was.

XQ. 87. Did you keep those records yourself?

A. I myself did not keep them, but—

XQ. 88. Some employee?

A. Some employee.

XQ. 89. Of the Lion Manufacturing Company?

A. Of the Lion Manufacturing Company, kept them.

XQ. 90. Kept them for them?

A. Yes.

XQ. 91. They are not in your handwriting, are they?

A. No, they are not.

XQ. 92. And those records that were made in 1937, of course you know nothing about them except having looked at them for the purpose of having made out this report, is that right?

The Witness: Will you repeat that question?

(Question read by the reporter.)

A. Oh, no. I had seen the various production records at the time.

XQ. 93. You did not see them in 1937, though, did you?

223 A. Yes, I did.

XQ. 94. Now, were you with the Lion Manufacturing Company in 1937?

A. Yes, I was.

XQ. 95. What was your position, then?

A. I was general manager.

XQ. 96. Now, just what did you do in making up this report, particularly from the records of 1937?

The Witness: I can't understand the question.

Mr. Threedy: I am referring to Plaintiff's Exhibit No. 15.

The Witness: What did I have to do with the making—

Mr. Threedy: Read the question.

(Question read by the reporter.)

A. I had that drawn by one of the people in our bookkeeping department of our company.

XQ. 97. Somebody in the bookkeeping department made the report to you, is that right?

A. Yes, I had that report made from our regular production figures.

XQ. 98. This report is not in your handwriting, is it?

A. No, it is not.

XQ. 99. This was handed to you by someone from the bookkeeping department, is that correct?

A. That is correct.

XQ. 100. So, so far as you know, you don't know
224 whether this report is accurate or not, is that correct?

A. Well, I am very confident that it is accurate because of the fact that I have looked at those records from day to day, and I would almost know within a very small percentage whether or not—

XQ. 101. Yes, but so far as this report, Plaintiff's Exhibit No. 15 is concerned, do I understand that you stated that some employee of the Lion Manufacturing Company, in the bookkeeping department, made this report and handed it to you?

A. That is correct.

XQ. 102. So far as your knowledge of this report is concerned, your knowledge is gleaned only from what you see on Plaintiff's Exhibit No. 15, is that right?

A. That is correct.

XQ. 103. And this chart, Plaintiff's Exhibit No. 16, did you likewise have someone make that?

A. Yes, I did.

XQ. 104. And whoever made it handed it to you as it appears here now in the court room, is that right?

A. That is correct.

XQ. 105. But so far as you are concerned, your knowledge concerning this report is gleaned only from what you see on the report, Plaintiff's Exhibit No. 16, is that right?

A. I wouldn't say that that was correct, because I know, while I don't know right down to the absolute
225 machine that that figure is correct, I do know that it is very nearly correct.

XQ. 106. But your testimony in the court room this afternoon as to this chart is based upon what you see in this chart, Plaintiff's Exhibit No. 16, is that right?

A. As gathered from the other figures that I brought with me.

Mr. Threedy: Yes.

The Witness: And those figures I am familiar with.

Mr. Threedy: XQ. 107. And those figures were made by someone in the bookkeeping department of the Lion Manufacturing Company, is that right?

A. Those figures, you mean in that graph?

XQ. 108. Whatever figures you referred to.

A. Yes, the production and the release.

XQ. 109. Yes, so that your testimony concerning the contents of this chart is gleaned only from what you see on this chart, Plaintiff's Exhibit No. 16, is that right?

A. I am afraid I am a little off on that. Will you repeat that question, please?

Mr. Threedy: Put it this way, if I may strike that, please:

XQ. 110. Your testimony given in this court room this afternoon concerning this chart is based upon the contents of this chart as you see it here, now, is that correct?

A. All of my testimony, you mean?

226 XQ. 111. No. Concerning this chart, Plaintiff's Exhibit No. 16.

A. Oh, yes, it is based on those figures that are in that book.

XQ. 112. Yes, and those figures were gotten by someone else other than yourself, is that right?

A. That is correct, yes.

XQ. 113. Now, if I understood you correctly, in the year 1936 the Lion Manufacturing Company, did you say, manufactured or sold some 30,000 game apparatuses of which 900 were of the bumper type?

A. That is correct.

XQ. 114. Now, in 1937 did I understand you to testify that the Lion Manufacturing Company manufactured or sold approximately 37,000 games of the bumper type, is that right?

A. That is correct.

XQ. 115. That is, during the entire year of 1937, is that right?

A. That is correct.

XQ. 116. Now, how many different games does the number 37,000 represent, approximately?

A. I should imagine that it represented—almost half of those were the Bumper type itself, the "Bumper" game itself.

XQ. 117. That would be approximately 19,000?

A. Approximately 18,000, I believe.

227 XQ. 118. 18,000. Now, how many of the balance of the 18,000 represented different games, in what proportion? How many different types of games did the balance, approximately 18,000 games, represent?

A. Different names of games that were used—

XQ. 119. Different games. Different games.

A. Different games?

XQ. 119. (Continuing) Yes.

A. Well, they were all pretty much similar to the "Bumper" game itself. We made just a few changes on them. I imagine we made maybe 10 other games that year, 15—

XQ. 120. Pardon me. Were you through?

A. Yes.

XQ. 121. What was the name of the game that followed "Bumper"?

A. We made a game called "Skipper", that may have come in just before "Carom". I know I mentioned before that "Carom" was the next game, but I believe we manufactured a game called "Skipper" at that time, using pretty much the same—

XQ. 122. At any rate, it would be correct in advising the Court that another game was substituted for "Bumper", is that correct?

A. Well, we just changed the features, various little things on the game; we would change the hazard layout on the game, but the main feature of our games has always been the bumper springs since then, since "Bumper".

228 XQ. 123. Will you explain to the Court what necessitated the change of these features that you referred to in the game that followed the "Bumper" game?

A. Well, we had a considerable number out in the field, then, and because of the fact that competition copied our bumper coil, it was necessary for us to make some kind of an additional change on our game, on our "Bumper" game, to add just a little more appeal than the other manufacturers had on their games, in order to get a little bit of a jump on them.

XQ. 124. Now, so that you do not confuse the mind of the Court, the "Bumper" game did not consist solely of these spring bumpers which we will refer to for the purpose of the record as the Nelson devices, is that right, it did not consist solely of the spring bumpers?

A. Well, that was the feature of the game, if that is what you mean.

XQ. 125. No.

A. We put various hazards on it to make it—

XQ. 126. I mean was there any other mechanical instrumentalities included in "Bumper" other than the—

The Witness: I beg your pardon.

Mr. Threedy: Go ahead.

The Witness: A. Yes. On these we might add a kicker to the game that would propel the ball from the bottom, so that it would go up to the top of the board, again allowing the ball to hit these bumper coils more frequently.
229 That would be an added feature, in other words, we wanted more frequent contacts of the ball with this kicker spring.

XQ. 127. And why would you add this kicker to the "Bumper" game?

A. Well, to give the player a longer scoring range, in other words, the object was to give the player as much fun appeal with this game as we possibly could, so that when it had completed its course down near the bottom of the board, there would be a little kicker device that would again kick the ball up toward the back end of the game, that is the part where the light box is on the machine, and allow it to go back down the board again, in other words, we would get two rolls down the incline instead of just one with that same one ball.

XQ. 128. In other words, the kicker increased the player appeal in the game, is that right?

A. The kicker would increase the playing appeal of the game because it allowed the bumper coil to be hit more frequently.

XQ. 129. Now, Mr. Moloney, I believe you testified on direct examination that you made it your business to know what was going on in the pin game industry, is that correct?

A. Yes, sir.

XQ. 130. As a result of that fact, is it a correct statement to make, that you can recognize the game that has the required player's appeal?

230 A. I believe so, but in the final analysis, it is usually the public itself that tells us whether or not a game has a lot of appeal.

XQ. 131. Yes. Now, with that in mind—pardon me. Have you identified, Counsel, the "Bumper" game?

Mr. Ooms: Yes, I have. That is Plaintiff's Exhibit No. 28.

Mr. Threedy: XQ. 131. (Continuing.) Now, with that in mind, Mr. Moloney, as you observe Plaintiff's Exhibit No. 28, you will note that there is an upright cabinet at the rear end of the main cabinet. What is the purpose of that cabinet?

A. You mean on the "Bumper" game there?

XQ. 132. On the "Bumper" game, Plaintiff's Exhibit No. 28.

A. That registers the score of the game, the number of times the bumper—the balls have contacted the coil springs.

XQ. 133. Yes. Now, could we call that a scoring device for purposes of interrogation, and would that be correct? I am referring to the upright.

A. Score register would be correct, I believe.

XQ. 134. Now, is it a fact, or state whether it is a fact or not, if the scoring device of "Bumper," Plaintiff's Exhibit No. 28, was removed from the game, what player appeal would be created by the ball contact switches, if any?

A. Well, a registering device is a necessity on a pin 231 table. It must show the frequency and we have always had them on every pin table that was ever manufactured, some form of registering device, that is standard equipment on a game.

XQ. 135. In other words, the scoring or registering device as you term it on "Bumper," Plaintiff's Exhibit No. 28, is equally an important mechanical element of the game as the bumper springs?

A. No. Certainly not.

XQ. 136. It is not— Now, will you explain that answer, please?

A. Well, as I explained before, it may be a little difficult to explain, the very first game that was ever made, to my knowledge, of the industry, and this goes back for a number of years away before "Bumper," the score was written on the bottom of a hole and the player totaled the score himself by merely adding the 100 hole, the 200 hole, and so on, and so as I say, it has been standard equipment which has some form of scoring device on a game. It is like taking the cabinet away, if you took the cabinet away from the game it would be—

XQ. 137. Well, as between the score registering device and the ball contact switches, just between those two in-

strumentalities of the game, one is equally as important as the other in creating the necessary player's appeal?

Mr. Ooms: I object to this question.

232 A. No, I don't believe so.

The Court: I don't know.

Mr. Ooms: It is purely argumentative.

The Court: I think it is very important,—then, we ought to find out the necessity for the ball. It is endless. We can just go on for a week.

Mr. Threedy: Well, you get into a little different situation with the ball. If the Court please, there is an important connection in regard to the connection between the two instrumentalities.

The Court: Then, it is a rather important device—commercial success—this would just go on forever. You can't.

Mr. Threedy: Well, I would just like to have this one question answered if the witness can answer it.

The Court: Go ahead. I am just pointing out to you the possibilities.

A. Certainly not, not so far as player appeal is concerned. The scoring device just merely indicates those bumpers, what he has done with the skillful manipulation of the shot, the ball shot.

Mr. Threedy: XQ. 138. Yes. In other words, if the scoring registering device is removed it is your opinion that the same degree of player's appeal will remain in connection with the "Bumper" game?

A. If the score registering device on any game were
233 removed, it would take all of the—it would do away with the game, there would be no necessity of having or even making the game.

XQ. 139. In that case there would be no necessity for it?

A. It is an integral part of the game, just as much as the cabinet or the playing surface itself is.

XQ. 140. Now, you have referred to on countless occasions, and I have too, in interrogating you, as well as Mr. Ooms, to the term "player's appeal." Now, will you define to the Court if you can just what you consider to be player's appeal?

A. Well, by player appeal I usually mean what incentive a player would have to put a nickel in the machine and play it, over another type of machine that might be right next to it. It might be the range of score that you can get. I would call that pretty nearly of prime impor-

tance, high score. By "range" I mean, assuming that the score range could be from zero up to 500. When we used the bumper spring, it increased the player's possibility of getting a higher score and there were not so many close points.

XQ. 141. No. I beg your pardon. Mr. Moloney, I am asking you what you define—what you mean by "player's appeal"?

A. That appeal that the game has for the public as far as amusement is concerned.

XQ. 142. Are you in position to advise the Court what factor or factors enter into player's appeal?

234 A. No, I don't believe I could exactly explain what the public always might want. The best method of determining that is the—

The Court: XQ. 143. What is the relative importance to get the player to play the machine, to create player appeal?

A. Well, it may be the different ways of scoring and the different range. I come back pretty much to the same thing all the time, that is the scoring range, the possibility of one player being more skillful than the other. It is quite difficult to explain the words "player's appeal," the phrase.

Mr. Threedy: XQ. 144. Now, does the Lion Manufacturing Company own the Nelson patent in suit?

A. No. We have a free license.

Mr. Ooms: I object to this. That is stipulated, your Honor.

Mr. Threedy: The witness had not testified as to just what the relationship of the Lion Manufacturing Company to the patent in suit is, and I think I have a right to interrogate him on that.

The Court: What is that?

Mr. Threedy: I asked the witness whether or not the Lion Manufacturing Company owned the patent in suit.

The Court: Did he testify anything about it?

Mr. Threedy: Well, he testified concerning the manufacture by the Lion Manufacturing Company of the bumper of the patent in suit. I don't believe there is any—

235 Mr. Ooms: There is a stipulation here as to ownership, if your Honor please. The plaintiff owns the patent and all rights to recover thereunder. That is in the stipulation read into the record this morning.

The Court: If he did not testify to anything about it and there is an objection, I will sustain the objection.

Mr. Ooms: We have no hesitation in saying for the record—

Mr. Threedy: XQ. 145. Does the Lion Manufacturing Company have any interests in the patent in suit?

A. We have a free license to manufacture.

XQ. 146. You have a free license?

A. To use the patent covering the bumper.

XQ. 147. Yes. Is that a written license?

A. No, it is not.

XQ. 148. Does the Lion Manufacturing Company have any interest in the plaintiff corporation, the Ace Patents Corporation?

A. No, we have not.

The Court: That would not make any difference, would it?

Mr. Threedy: Well, it certainly would have a bearing upon the testimony of this witness, on the testimony he has offered, your Honor. Now, it may seem immaterial I may be wrong.

The Court: Do you want to show that he would be prejudiced or affected by that?

Mr. Threedy: Well, I wouldn't say that. I regard 236 the witness' integrity and sincerity, if he testifies he believes the fact to be—

Mr. Russell: We will stipulate and give you any facts in connection with it, if you want to.

Mr. Threedy: Is the objection sustained?

The Court: No. I said go ahead.

Mr. Threedy: Read the question.

(XQ. 148 and the answer thereto read by the reporter.)

XQ. 149. Mr. Moloney, can you briefly state the relative amount of money spent each year in advertising the games which you refer to as having manufactured during the years of 1936, 1937, 1938 and I think you said up to 1940?

A. I imagine that we spent about six or seven, possibly higher, hundred dollars a week. That would be about \$30,000.00 a year in advertising.

XQ. 150. \$30,000.00?

A. I believe it would run in that neighborhood.

Mr. Threedy: No further cross-examination, if your Honor please.

Mr. Ooms: There are just a few questions, Mr. Moloney.

Redirect Examination by Mr. Ooms.

RDQ. 151. You were asked something about the 237 scoring registers on these devices. Were they in use prior to the time when this bumper spring was first put into production?

A. That particular scoring device was used on a game, that particular one. We call it the projection unit because it projects onto a frosted glass there by means of a light through a metal disc to project the score. We first used that game on a game called—a miniature skee ball was what it was. We used that about in 1935, in 1935 I believe.

RDQ. 152. Now, about scoring registers generally, electrical score registers which registered the scores which the player was making, had they been in use for some time?

A. Oh, yes.

RDQ. 153. And about these kickers to which counsel referred, the use of these kickers on these boards throws the balls up-like after they reach the bottom of the board?

A. They were used prior to the time we used it on games. One game I had in mind was a game called "Bally Booster" which was a game we manufactured shortly after we manufactured "Bumper," we manufactured a game called "Bally Booster" on which we used the kicker. That was the one we had in mind, but we had used a kicker previously, I believe.

RDQ. 154. For months or for years, or what is the fact?

A. Oh, years.

RDQ. 155. I think counsel referred to Plaintiff's Exhibit No. 15, which was the tabulation you prepared, and he called your attention to production for the year 238 1937 of 36,769 units and asked you, I believe, what percentage of those were Bumper type games. Will you kindly examine that tabulation and any other records that you produced here and tell the Court how many?

The Witness: May I refer back to that particular question? I believe I was asked how—I stated that of the 36,769 games produced in 1937, 18,000 of them was that particular game called "Bumper."

The Court: RDQ. 156. You did not say bumper type. You said "Bumper" game.

A. "Bumper" game.

RDQ. 157. And they were all bumper type, as I understood it?

A. That is right, and the total number of games made in 1937 was 36,769, and they all had bumpers on them, the total number of the bumper games made in 1937.

Mr. Ooms: RDQ. 158. I will ask you to examine these documents which you brought with you today and ask you to direct your attention first to the bound pamphlet.

Do you want to stipulate that these are production records?

Mr. Threedy: No.

Mr. Ooms: RDQ. 158. (Continuing.) Calling your attention to the bound pamphlet, which I shall have the reporter mark as Plaintiff's Exhibit No. 30, I will ask 239 you what that is?

A. That is a volume in which are contained—

Mr. Threedy: I think I misunderstood you, Mr. Ooms. What did you ask me to stipulate?

Mr. Ooms: To stipulate that these are our production records kept in the usual course of business.

Mr. Threedy: But not by Mr. Moloney?

Mr. Ooms: Yes.

Mr. Threedy: Yes, I think if they are subject to any corrections or errors or omissions I may find.

Mr. Ooms: Well, I have to put them in, in view of the fact that you attack my tabulation. I have got to put in the supporting data and here it is. I will have the daily production record from October 1, 1936 to April 30, 1937, marked as Plaintiff's Exhibit No. 30, and for the game "Bumper", No. 126, marked Plaintiff's Exhibit No. 31. The production record says "Airway"—

The Court: Now, gentlemen, it is going to cost somebody some money needlessly. Somebody is going to lose. You win or lose a lawsuit and after a while somebody is going to want to have it reviewed. The question is whether you are going to have one piece of paper or five or a thousand.

Mr. Threedy: I said to Mr. Ooms that I am willing to stipulate to it.

Mr. Russell: We will put in a recapitulation subject 240 to check.

Mr. Threedy: That is all I ask, if your Honor please, a right to check them, subject to any errors or mistakes I may find.

Mr. Ooms: Well, this is the thing, I am trying to avoid

making an offer of one tabulation here and have it attacked, because your examination of witnesses indicates that you want to attack it as not having anything to do with the facts herein. I am willing to submit the tabulation to you and for you to examine it and if you agree to it, then we will agree that that tabulation summarizes our production figures.

Mr. Threedy: I am speaking of the record here. It may be that I don't get the point.

The Court: As to those records, as I view it, if they are kept in the ordinary course of business and if it is in the ordinary course of business of this Ace Patents Corporation to keep such records which are made at or about the time of the transactions which they reflect, then, those records are admissible if they are relevant and material. Now, I see that they are relevant and also material.

Mr. Russell: Yes.

The Court: But there are hundreds of pages of them. Why encumber this record with them? It is just absurd.

Now, a tabulation may be made of complicated records by a person that is capable of doing it, provided the 241 records are produced in court subject to cross-examination and inspection. Now, the records are here and the only question is whether or not this tabulation has been properly made. I take it that the man who made the tabulations can be brought in here in the morning?

Mr. Russell: Yes, he can. We will bring him in, if you want.

Mr. Threedy: I am not objecting to them. I am just saying, I don't understand what the point is. I do not think there was any question on it.

The Court: Well, bring out that tabulation and see if you can stipulate.

Mr. Russell: Yes.

Mr. Ooms: Here is the tabulation. I haven't offered it yet. I would like to offer that.

Mr. Threedy: Why take up the Court's time or counsel's time in going over this? Let us assume it is correct and now it is subject to any corrections we may find, if we find any. That is all we ask. I am willing to stipulate to it, subject to any corrections we may find about it.

The Court: All right, it may be received.

Mr. Ooms: What about this? (Indicating document.)

Mr. Threedy: The same applies there.

Mr. Ooms: It is hereby stipulated between counsel that

the tabulation, Plaintiff's Exhibit No. 15, is a tabulation of the bumper type games manufactured by Lion 242 Manufacturing Corporation from December, 1936, to and including April 30, 1940, a tabulation based upon the production records of that company and subject to correction, if before the end of the trial counsel calls attention to any errors appearing therein.

Mr. Threedy: That is agreeable.

The Court: Very well.

Mr. Ooms: It is also stipulated that the chart, Plaintiff's Exhibit No. 16, was similarly made from the production records of Lion Manufacturing Company and shows for the period October 1, 1936 to December 18, 1936, the total games produced by that company and separately, the production of the game known as "Preakness," and that from December 18, 1936 to April 19, 1937, the chart shows the total games produced by Lion Manufacturing Company and separately, the Bumper type games produced by that company. Also, the chart is subject to correction if errors are noted, if attention is called to errors therein before the completion of the trial.

Then, I would like to eliminate this marking of Plaintiff's Exhibits Nos. 30 and 31 and submit those to counsel for inspection.

I would like to offer into evidence the exhibits identified by this witness, PLAINTIFF'S EXHIBITS 15 to 29, inclusive. Is there any objection?

Mr. Threedy: No objections.

243 The Court: They may be received.

(Whereupon said exhibits marked as Plaintiff's Exhibits Nos. 15 to 29, inclusive, were received in evidence by the Court.)

Mr. Ooms: That is all, Mr. Moloney.

(Witness excused.)

Mr. Ooms: The plaintiff rests, your Honor.

The Court: We will take a short recess, gentlemen.

(Whereupon a short recess was taken.)

244 Mr. Ooms: If your Honor please, we finally have these machines in working condition, if you want to examine them, briefly, at any time during the trial, to see how they operate. Now would be a good time to examine them.

(Whereupon the Court left the bench and observed the operation of Plaintiff's Exhibits Nos. 28 and 29 and Defendants' Exhibit No. 2.)

Mr. Ooms: This machine (indicating game apparatus) was made by Lion Manufacturing Company in 1936.

This (indicating game apparatus) was the machine made by the Pacent Novelty Manufacturing Company, as will appear in the depositions in regard to developing a spring. They were the people who were the prior inventors of this "Bolo" game.

I will show your Honor briefly how this machine operates.

(Machine operated before the Court.)

Mr. Ooms: The ball is released and each time it strikes one of those, it registers. Then, there is a time switch in there that cuts them off when a certain amount of time has expired.

This operates-I think in the same manner.

(Machine operated before the Court.)

Mr. Threedy: While the Court is here, would you mind looking at the "Bolo" game. This is the game (indicating "Bolo" game apparatus) and that was made by the 245 Pacent Novelty Manufacturing Company and admitted prior art. Those lights are supposed to light.

(Whereupon said "Bolo" game apparatus, Defendants' Exhibit No. 2, was operated before the Court.)

The Machine Attendant: Notice it struck a second time and registered 2 there.

Mr. Threedy: I think your Honor gets the idea of scoring that is indicated up on the top.

The Court: Yes.

Mr. Threedy: Now, we have at this time, if the Court please, a package here that is sealed containing the depositions of John Grimm, Ellsworth M. Fitch, Martin B. Grimm, Thomas L. Wilder and Sol M. Silverstein. Pursuant to stipulation on file with the Court, counsel and myself agreed that these depositions should be kept in sealed packages and delivered at the trial of the case to the Court. This package is also supposed to contain the majority of the exhibits referred to by the witnesses, I think with the exception of two exhibits, the "Bolo" game and another exhibit. I haven't opened this package and with the Court's permission I would like to open it, and I want to file these exhibits.

The Court: There is no reason why the package 246 should not be opened, now.

Mr. Ooms: No. I would like to have it opened. It is perfectly all right.

Mr. Threedy: We will proceed, I presume, or shall we recess for a while?

The Court: Well, you can put something in now.

Mr. Threedy: Yes. All right.

(Whereupon the package containing said depositions of John Grimm, Ellsworth M. Fitch, Martin B. Grimm, Thomas L. Wilder and Sol M. Silverstein and exhibits contained therewith, was opened before the Court.)

Mr. Threedy: I believe that is the correct procedure, is it not, if your Honor please?

I offer these in evidence, these depositions with the respective exhibits referred to in the depositions.

The Court: Very well.

Mr. Threedy: Does your Honor want them now?

The Court: You can lay them here.

(Whereupon said exhibits were placed before the Court.)

(Said DEFENDANTS' DEPOSITION EXHIBITS NOS. 1 to 24, inclusive, so offered and received in evidence by the Court, were marked as Defendants' 247 Exhibits Nos. 1 to 24, inclusive.)

Mr. Threedy: On behalf of the defendants I offer in evidence as Defendants' Exhibit No. 25 a certified copy of the File Wrapper and contents of the patent in suit, No. 2,109,678.

On behalf of the defendants I offer in evidence a book of prior art patents, as Defendants' Exhibit No. 26. In this book, as prior art, notice of which has been duly given by counsel in accordance with the statute, are patent numbers 501,777, 1,057,879, 1,319,038, 1,678,573, 1,808,060, 2,053,379, 2,118,037, and French Patent No. 541,079, as showing the state of art. There are contained the following patents in this book, Defendants' Exhibit No. 26:

Nos. D-94,290, D-94,291, D-94,714, 2,037,108 and 2,042,786. I offer this book of art in evidence on behalf of the defendants as DEFENDANTS' EXHIBIT NO. 26. May they be received, your Honor?

The Court: They may be received.

(Said documents, so offered and received in evidence by the Court, were marked as DEFENDANTS' EXHIBITS NOS. 25 and 26, respectively.)

Mr. Threedy: Now, in accordance with the Stipulation heretofore referred to by counsel for the plaintiff,

I offer in evidence as Defendants' Exhibit No. 27 a 248 photostatic copy of a portion of page 67 of The Billboard magazine bearing date July 11, 1936, wherein there is illustrated an advertisement by the Pacent Novelty Manufacturing Company of Utica, New York.

The Court: It may be received.

(Said photostatic copy of a portion of page 67 of The Billboard magazine issue bearing date July 11, 1936, so offered and received in evidence by the Court, was marked DEFENDANTS' EXHIBIT NO. 27.)

Mr. Threedy: I also offer in evidence in behalf of the defendants and in pursuance to the Stipulation referred to, a photostatic copy of a portion of page 97 of The Billboard magazine bearing date of July 25, 1936, which purports to be and is admitted by stipulation to be an advertisement of the Pacent Novelty Manufacturing Company of Utica, New York. This is offered in evidence as Defendants' Exhibit No. 28.

The Court: It may be received.

(Said photostatic copy of a portion of page 97 of The Billboard magazine issue bearing date July 25, 1936, so offered and received in evidence by the Court, was marked DEFENDANTS' EXHIBIT NO. 28.)

Mr. Threedy: Now, for the convenience of the 249 Court, I have prepared a book of drawings illustrating the devices of the defendants and as this book may be from time to time referred to, copy of which has been given to Mr. Ooms, I will refer to it as Defendants' Exhibit No. 29 for the purpose of reference, and if your Honor will so accept it, I would like to present the book to the Court. I have merely prepared it for your Honor's convenience to refer readily to the various devices of the defendants.

(Whereupon said book of drawings was marked Defendants' Exhibit No. 29, for identification.)

Mr. Threedy: I now also further in behalf of the defendants, pursuant to the stipulation heretofore referred to, offer in evidence the amusement game apparatus bearing the mark "Bolo" as Defendants' Exhibit No. 2, the same having been offered in evidence at the time of the taking of the depositions and now stipulated by counsel for the plaintiff as being a prior art device. The same is offered in evidence.

The Court: It may be received.

(Said "Bolo" game apparatus, so offered and received in evidence by the Court, was marked DEFENDANTS' EXHIBIT NO. 2.)

Mr. Threedy: For the convenience of the Court, 250 I have prepared a chart which illustrates in broken-down condition, so to speak, the rejected and cancelled application Claim 2, the original Claim 7, before and after amended as shown in red ink, and which was issued as Claim 4. As this chart will be referred to, I would like to present that so-called chart as DEFENDANTS' EXHIBIT NO. 36 and for that purpose offer it.

The Court: Very well.

(Said chart was marked Defendants' Exhibit No. 36.)

Mr. Ooms: Everything in there is out of the file, isn't it?

Mr. Threedy: I hope so. I will present Mr. Ooms with a copy of the chart and I would like to have the Court have a copy, too.

Now, I would like to call Mr. Leslie M. Hansen as a witness in behalf of the defendants.

LESLIE M. HANSEN, called as a witness on behalf of the defendants, being first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Threedy.

Q. 1. What is your full name, please?

A. Leslie M. Hansen.

251 Q. 2. What is your address?

A. I live at 4743 North Kenton Avenue in Chicago.

Q. 3. What is your age, Mr. Hansen?

A. I am 33 years of age.

Q. 4. What is your present occupation?

A. I am employed as a patent draftsman and specification writer for Clarence E. Threedy, the attorney for the defendants in this cause.

Q. 5. How long have you been in my employment, Mr. Hansen?

A. Since the fall of 1933.

Mr. Threedy: Now, I direct your attention to Defendants' Exhibit No. 30, a drawing. Pardon me.

(Said drawing was marked as Defendants' Exhibit No. 30.)

Mr. Threedy: Now, for the Court's convenience I have prepared in a book all of the drawings that the defendants will refer to, in addition to an enlarged drawing of Fig. 2 of the patent in suit. I will present counsel with a copy of this book. I think it would be much easier for the Court to refer to the book as charted, to illustrate the points of interrogation to be followed. I believe I gave the Court my copy of the book. I will exchange those. I am sorry.

Q. 6. Have you a photostat of the drawing, Defendants' Exhibit No. 30, in your possession, Mr. Hansen?

A. Yes, sir, I have.

252 Q. 7. Can you identify the drawing, Defendants' Exhibit No. 30 and if so, please do so.

A. This is a drawing that I made, representing the device of the Fisher Patent No. 501,777, applied to a horizontal table.

Q. 8. Will you explain the construction illustrated in the Defendants' Exhibit No. 30?

A. The device of the Exhibit No. 30 shows a horizontal board on which there is mounted a contact switch. This contact switch is mounted on the board through the medium of a post or bolt 13, and this post supports a coil spring 14 which extends laterally from the post. The coil 14 extends through the loop of a contact element 15, the shank of which is driven through the board and is fixed on the underside of the board by means of a plate 17 which is adapted to be connected to an electrical circuit. The post 13 also is connected in an electrical circuit and the entire unit comprises a switch.

Q. 9. I am going to hand you my book of prior art patents, Defendants' Exhibit No. 26; will you advise the Court how the patentee, Fisher, describes his device in so far as use is concerned?

A. Fisher says on the first page of his specifications, commencing at line 42 in the first column:

"In carrying out the invention the device consists of a base plate A, which may be of any desired shape, 253 but is preferably made somewhat diamond shape, as illustrated in the drawings. The base is made of an insulating material, as for instance hard rubber, and at opposite sides thereof metal plates 10, are lo-

cated, the plates being preferably of copper or of a metal which is a good conductor of electricity."

Then, on page 2 of the specifications, commencing at line 50, the Fisher patent states:

"The device is exceeding simple, it may be readily transported from place to place, and it is capable of being expeditiously applied to any article wherein it is desirable that an alarm should be sounded when the article is unduly tampered with."

Q. 10. In the Fisher drawing, Mr. Hansen, what does the patentee Mr. Fisher show as engaging the spring 14?

A. He shows the use of the device on a door frame to set up a signal when the door is opened, and also in Fig. 5 there is—no—I believe it is Fig. 2, there is a showing of its use on a window sash.

Q. 11. And when the door engages the spring 14, what is the effect—what is the relationship between the spring 14 and the conductor ring 15?

A. Well, the door will flex the spring 14 and bring 254 it into contact with the loop of the contact member 15 and thereby complete circuit to what alarm might be in the device; for instance, the bell 22 of Fig. 1, so that the bell will ring when the door is opened or when the window is opened.

Q. 12. Now, are you familiar with the construction and operation of the Nelson device particularly shown in Fig. 2 of the Nelson patent in suit?

A. Yes, I am.

Q. 13. Will you be kind enough to make a brief comparison structurally between the Nelson device and the device of the Fisher patent?

A. Well, each of these devices are contact switches. The device, as shown there in Defendants' Exhibit No. 30 is mounted on a horizontal table, which is analogous to the table 10 of the drawing of the Nelson patent. The bolt 13 is similar to the post 11 of the Nelson device, and the coil spring 14 is analogous to the coil spring 18 of the Nelson patent. In the device of Fisher, the coil spring has a portion which makes contact with a loop such as the loop 15 of the contact member 15, to close the circuit, and that is the same as the leg 19 of the Nelson device, which makes contact with the ferrule 22 embedded in the board.

Upon flexing of the spring 14, circuit is completed to a signal and an alarm is set up and upon the flexing of

the spring 18 of Nelson a contact is made between
255 the leg 19 and the ferrule 22 and a signal is also
set up to indicate that there has been some tamper-
ing or some striking of the spring.

Q. 14. Is it a correct statement to say, Mr. Hansen,
that in each of these devices, namely, the Fisher device
and the Nelson device, when the spring 14 in Fisher and
the spring 18 of Nelson is engaged by an object, the spring
is caused to flex to close a circuit?

Mr. Ooms: I object to the question as leading.

The Court: Yes, I think it is leading, but I will let him
answer it.

A. I think the statement is correct, yes.

Mr. Threedy: Q. 15. Now, I hand you herewith a
model marked for identification as Defendants' Exhibit
No. 31, and I will ask you if you can identify the same and
if so, state what it represents.

(Said model was marked Defendants' Exhibit No. 31
for identification.)

A. This is a model which was made up by the Chicago
Coin Machine Manufacturing Company, at my direction,
and it illustrates the device which I have shown in De-
fendants' Exhibit No. 30 wherein the Fisher device is ap-
plied to a horizontal table.

Q. 16. Will you examine the model, Defendants' Ex-
hibit No. 31, and advise the Court whether there has
256 been any departure structurally from the disclosure
in the Fisher patent?

A. No. It is substantially as shown in the patent is-
sued to Fisher.

Q. 17. The Fisher patent we referred to, No. 501,777?

A. That is correct.

Q. 18. Now, I will hand you another model marked for
purposes of identification as Defendants' Exhibit No. 32,
and I will ask you if you can identify the same and if so,
state what it represents.

(Said model was marked Defendants' Exhibit No. 32
for identification.)

A. This is another model which was made at my direc-
tion by the Chicago Coin Machine Manufacturing Com-
pany and it illustrates the device of the Fisher patent as
shown in the drawing of the Fisher patent and applied in
a vertical position so that the coil spring 14 of the device
extends up through a hole in a horizontal table.

Q. 19. Does the disclosure of the Fisher patent show

the Fisher device mounted beneath a board with the spring 14 thereof projecting through an opening formed in the board?

A. No. It does not show it mounted in that manner.

Q. 20. Do you find in the book of prior art patents a patent which suggests such an arrangement?

A. Yes. There are patents that show that. There is a patent which issued to Hooker, one Hooker, Patent 257 No. 2,042,786, filed June 12, 1935, and issued June 2, 1936, which shows in Figures 5 and 6 a mounting for a spring switch extending up through a hole in the board.

Q. 21. What was the purpose of having the Fisher device shown in connection with the horizontal board as illustrated in Defendants' Exhibit No. 32?

A. Well, to show as was suggested by Fisher in his specification, that it may be applied to any device or in any manner where a signal is desired, and in this instance, to show that it could be applied to a ball rolling table.

Q. 22. Now, I direct your attention to the drawing, Defendants' Exhibit No. 33, and ask you to identify the same and state what it represents.

(Said drawing was marked Defendants' Exhibit No. 33.)

A. That is a drawing that I made, an enlarged drawing of the device of — one of the devices disclosed in the Dabos patent, which is a French patent.

Mr. Threedy: That is the French patent, if the Court please. It is a photostatic print, I think.

The Witness: A negative photostatic copy is bound into the book of prior art and it is French Patent No. 541,079.

The device of the Defendants' Exhibit—the drawing, Defendants' Exhibit No. 33, is taken from Figures 10 and 11 of the disclosure of the Dabos patent.

258 Incidentally, the disclosure of Defendants' Exhibit No. 33, shows the device of Dabos mounted on the underside of a horizontal board and extending up through a hole in the board, so that the detector end or the coil spring of the Dabos device is accessible on the upper surface of the board.

Mr. Threedy: Q. 23. I want to direct your attention to this model, which is marked for purposes of identification as Defendants' Exhibit No. 34.

(Said model was marked Defendants' Exhibit No. 34 for identification.)

And ask you to state if you can identify it and what it represents?

A. This is a model which was made by the Chicago Coin Machine Company.

Q. 24. Hand it up so that the Court may see it please.

A. (Continuing) Under my direction, and it is a model which was built in accordance with the disclosure of the Dabos patent, and the model is mounted on the underside of a horizontal table with the coil spring portion extending up through a hole in the board so as to be accessible on the upper surface and it is, it might be said, a physical exhibit or a physical model of the showing of Defendants' Exhibit No. 33.

Q. 25. Does the device of Dabos as associated with the model, Defendants' Exhibit No. 34, follow the construction of the device as shown in the Dabos patent?

A. Yes. It is constructed as shown in the patent, particularly Figures 10 and 11.

Q. 26. Explain the operation of the Dabos device as incorporated in Defendants' Exhibit No. 34.

A. The device is so constructed that there is an outer coil spring surrounding or circumscribing an inner coil spring, each of these two coil springs forming separate contact members that are insulated from each other so that if the outer spring is struck by an object, a contact will be made between the two coil springs to complete a circuit to whatever signal means is connected to the device.

Q. 27. Would you say that Dabos discloses a pendantly supported spring? And if so, point out where you find such a spring.

A. Well, as shown in Figures 10 and 11, the device of Dabos is shown hanging down from the head structure of the door, so that when the door is open the topmost edge of the door would strike the extending button on the coil spring of the Dabos structure to complete the circuit. However, in the device of Defendants' Exhibit No. 34, the device is reversed from the showing of Figures 10 and 11, that is, I have merely reversed it and inverted it so that the spring is extending upwardly and in that respect, you could not say that it was depended or depending from the base.

260 Q. 28. Does the Dabos disclosure show the spring projecting up through an opening formed in a horizontal board?

A. No. It does not show it in that manner, no. The

prior art, of course, teaches that that can be done and the Dabos structure as shown in Defendants' Exhibit No. 34 is merely applied to a horizontal board according to the teaching of the Hooker structure which I have before mentioned.

Q. 29. Will you make a brief comparison between Dabos' structure as shown in Defendants' Exhibit No. 33 with Fig. 2 of the Nelson patent in suit?

A. Well, as shown in Defendants' Exhibit No. 33, the Dabos structure is shown associated with a horizontal table which is analogous to the like of board 10 of the Nelson structure and the coil spring *a* of Dabos is similar to the coil spring 18 of Nelson. It surrounds a base member which forms its support, the base being *c*, the insulated block which is a support in the manner that the post 11 is a support and the coil spring *a* forms one contact of the switch which it constitutes and the inner spring *b* forms the other contact which performs the same function as the ferrule 22 of the Nelson device. The spring *a* is adapted to be flexed when it is struck by an object as, for instance, a rolling ball in a like manner as the spring 18 of the Nelson patent and is also adapted to return by its own resiliency to a normal position such as the spring 18 261 of Nelson, to re-project the ball back upon the table; and incidentally, when the flexion takes place, the circuit is closed or contact is made to complete a circuit to a signal to indicate that there has been a hit made.

Q. 30. Now, will you refer to Defendants' Exhibit No. 35 which appears in the first drawing of the book of drawings that I handed to your Honor, and state what it represents?

(Said drawing was marked Defendants' Exhibit No. 35.)

A. That is a drawing I made of the "Bolo" pin, which is found in the device of Defendants' Exhibit No. 2.

Q. 31. Explain the construction and operation of the device shown in Defendants' Exhibit No. 35.

A. The "Bolo" pin has a base member indicated at 2, which is mounted on the underside of the table with the pin portion extending up through a hole 8 in the table so as to be accessible from the upper surface of the table. There is a coil spring 1 pendantly supported from this base 2 and this coil spring terminates at a point substantially spaced from the base 2 and surrounds the lower con-

volution of the coil spring, surrounding a shaft which extends down from the pin 1, that is the bolt pin 1' and then there is an extension from the lower end of the coil spring 1 in the form of a feeler wire 4 which is concentrically positioned within an annular opening 6. This opening 6 is formed in a bracket 3, which is suspended from the plate 2 and is insulated from it, from the plate 2.

Now, the bracket 3 is connected to one side of a circuit by means of a lead 5; and the base 2 is connected by a lead 7 to the other side of a circuit to some particular signal means; and in the operation of this structure, when a ball rolls down the table and strikes the pin, the pin is caused to deflect and the spring 1 is flexed, allowing the extension 4 of the pin to come in contact with the annular ring 6 and close the circuit to indicate that the pin has been struck. The "Bolo" pin will then straighten up by reason of the resiliency of the coil spring 1 to its normal condition and the ball is re-projected back on the table, and may continue its path down the table.

Q. 32. Briefly compare the Bolo ball contact switch, Defendants' Exhibit No. 35, with the disclosure of the Nelson device as shown particularly in Fig. 2 of the patent in suit..

A. Both of the devices of Defendants' Exhibit 35 and that of Nelson are contact switches and they are shown associated with a horizontal table out over which balls may be played or rolled; and in the device of "Bolo" there is a base member 2, which is anchored to the board *b* which is where we—and we find that to be the same as the post 11 of Nelson. Now, the coil spring 1 is pendantly supported from this base member 2 in a manner similar to the coil spring 18 which is suspended from the post 11.

In "Bolo" there is a depending leg 4, which is similar to the leg 19 of the coil spring 18 of the Nelson patent and the annular ring 6 of "Bolo" is like unto the ferrule 22 of the Nelson patent; and in each of these devices the coil springs are adapted to be flexed by action of a ball rolling down the table to cause a contact to be made between their respective contact members and set up a signal. And in each of these devices the coil springs are such that when they return by their resiliency to a normal condition, the ball may be passed away from the object to continue its course down the board.

Q. 33. Now, for the purposes of summarizing your testimony thus far, Mr. Hansen, do each of the devices which you have referred to include a conductor means in the form of a spring?

A. Yes, they do.

Q. 34. And do each of these devices include a companion conductor member adapted to be engaged by the spring when flexed?

A. Yes, each device has such a companion member.

Q. 35. And in each device, Mr. Hansen, is the spring flexed by engagement with the object?

A. Yes, each spring is adapted to be flexed by some object that engages the device.

264 Q. 36. The "Bolo" device which you have just testified to and as shown in Defendants' Exhibit No. 35, is that device used in connection with the bagatelle game?

A. Yes, it is, as shown in Defendants' Exhibit No. 2.

Q. 37. And do each of the devices which you referred to control an electric circuit?

A. They are all switches for—contact means or electric switch means for an electric circuit.

Q. 38. Now, will you refer to the book of prior art patents, Defendants' Exhibit No. 26, and refer to Design Patent No. 94,290?

A. Yes.

Q. 39. Do you know who made the original drawing of the application on which that patent issued?

A. Yes.

Mr. Ooms: I object to that as immaterial, your Honor, to the issue in this case. The published disclosure is all we are interested in, to show the state of the art.

Mr. Threedy: I merely have the witness refer to that for the purpose of showing this machine drawing was made by him.

Mr. Ooms: But that hasn't anything to do with this case.

The Court: What is it?

Mr. Threedy: I say I am interrogating the witness as to whether or not he made or knows who made the drawing of this Design patent.

265 Mr. Ooms: One of the Design patents offered this afternoon, offered to show the state of the art. Only the disclosure that appears to the public is of any pertinence.

Mr. Threedy: Well, you will see the materiality of it, Mr. Ooms, as we go along.

The Court: What is the materiality?

Mr. Threedy: The materiality of these various Design patents is found in the fact that each of these Design patents include in some form or another a bumper or target objective in the form of a spring, and that I am given to understand by this witness that he made the drawings of these various patents from actual machines which were in operation, and that was the purpose of the interrogation of the witness.

Mr. Ooms: I don't see that that has anything to do with this case, if they want to show what was in some machines. This is offered to show the state of the art and the publication itself is all that is of any concern here. It may be that having made the drawing, he can read it and tell us what is in it.

The Court: Well, he may answer.

The Witness: Read the question.

(Q. 39 read by the reporter.)

A. Yes, I do. I made the drawing, the original drawing of this particular application.

Mr. Threedy: Q. 40. And what does the drawing 266 illustrate, Mr. Hansen?

A. Well, it is a game apparatus and it shows a cabinet having a play table on which there are fixed certain ball objectives. The form shown is that of the upper torso of a football player with arms extended. The arms have extending right angles from the body or at the elbow points little convolutions or coil springs against which the balls may be bumped or caused to bump.

Q. 41. With your Honor's permission, I would like to have the witness indicate in the book of prior art patents the springs which he refers to, by reference character "X".

A. Well, there is one shown in Fig. 3 in side elevation extending from an upright member.

Q. 42. And what do you say is the effect of the ball engaging the springs carried by the arms of the objectives?

A. Well, the ball will cause the spring to be flexed and will be rebounded off of the spring if it strikes it at the front end. However, the particular purpose of the coil spring mounted on the two arms of the manikin is to catch the ball as it is coming down the field and cause it to

draw into an out-pocket, but if a ball strikes that coil spring head-on or from the outside, it will be deflected or rebounded back on the table and permitted to continue on down the inclined board.

Q. 43. Now, referring to the Tratsch Design Patent 267 ent 94,291, state whether or not you made the drawing, the original drawing of the application and if so, state what it represents and explain its disclosure.

A. I made the original drawing of this application and it is a game apparatus in which there is positioned on the play board two teams of football players in their regular formation. In addition to these, manikins that are used on the table, there are little ball objectives at random on the table. There is one of them shown in Fig. 2, to the left of the little manikin there, and these little ball objectives are coil springs that are mounted on a brad or nail, nailed down on the table, so that when a ball rolls down the table, it may strike these objects and be rebounded back up the inclined plane to change its course of travel down the board.

Q. 44. Now, referring to the next Tratsch Design Patent No. 94,714, will you explain whether or not you made the drawing, the original drawing of that patent and what it illustrates?

A. This is publication of an original drawing which I made in this particular application of a game that was manufactured by the A. B. T. Manufacturing Company in which they displayed on the table the various compositions of the stars in the heavens, as you see in the center-most position, that is the Big Dipper and it is pointing to the North Star at the center point, and then there is 268 the Archer and the Lion and what not, and each one of the little stars of these formations is a pin which may be seen in the section, Fig. 2, which is surrounded by a coil spring, and each one of these coil springs on the pin standards form a rebound means so that the ball may be deflected down the table and caused to change its course in its travel down the board.

Q. 45. Now, I hand you a spring that has been marked for identification as Defendants' Exhibit No. 40.

(Said spring was marked Defendants' Exhibit No. 40.)

Will you state whether or not you recognize that as a spring incorporated in the Design patent which you last referred to, namely, No. 94,714?

A. This is a coil spring that I have had in my possession for a number of years. I had it in my desk at the office. It doesn't happen to be the one that is used in the device of Design Patent No. 94,714, but it is a coil spring that is used in a Fischer Patent No. 2,118,037. In Fig. 3 of this patent, there is a coil spring such as this one identified as Defendants' Exhibit No. 40, and the coil spring is marked with pencil "X". The coil spring is just mounted in a vertical position with a nail or brad holding it in that vertical position and it is adapted to be struck by a ball from its sides.

The Court: We will recess at this time, gentlemen.
269 You may come in at 10 o'clock tomorrow morning, if you will.

What is your best judgment, now, Mr. Threedy, as to how much time you will take?

Mr. Threedy: I will finish with Mr. Hansen here in at least not more than 15 or 20 minutes at the most, after we get started, and then I have one witness that should take about a half an hour on direct examination, and then one other witness that will take equally a half hour, and that will conclude my case.

The Court: What is your best judgment as to how much time it will take?

Mr. Ooms: My cross-examination will be no longer than that, I am sure, and as to rebuttal, I contemplate no rebuttal at this time, except I will have one witness if testimony develops that isn't in now.

The Court: Tomorrow morning at 10 o'clock.

It is your desire that I take these with me (indicating depositions)?

Mr. Ooms: Yes.

Mr. Threedy: Yes, your Honor.

Whereupon an adjournment was taken until the following day, Wednesday, May 15, 1940, at 10 o'clock A. M.

270 * * (Caption—16,209-16,210-16,212) * *

Before Hon. John P. Barnes, Judge.

Wednesday, May 15, 1940,
10 o'clock A. M.

Trial resumed pursuant to adjournment.

Present:

Mr. Russell,
Mr. Nelson,
Mr. Ooms;
Mr. Threedy.

The Court: You may proceed.

Mr. Threedy: Does your Honor wish to look at these two advertisements that we put into evidence yesterday? And this is also the File Wrapper history of the patent in suit.

(Mr. Threedy hands documents to the Court.)

271 LESLIE M. HANSEN, resumed the stand on behalf of the defendants, having been previously duly sworn, testified further as follows:

Direct Examination (continued) by Mr. Threedy.

Q. 46. Mr. Hansen, by the way of summary, will you make a brief comparison between the prior art patents that you referred to yesterday and the device of the patent in suit as illustrated in Fig. 2?

A. Regarding the devices of the Fisher Patent No. 501,777, the Dabos patent, the French patent, and the device known as the "Bolo" structure which are shown in Exhibits, Defendants' Exhibit No. 35 showing the "Bolo" structure, Defendants' Exhibit No. 30 showing the Fisher structure and Defendants' Exhibit No. 33 showing the Dabos structure, all of these devices like the Nelson device relate to contact switches. In each of these devices, there is a coil spring that is adapted to be flexed by an object to cause the closing of a circuit, and when the coil springs are returned to normal position, the circuit is again

broken and particularly in the structure of "Bolo" when the pin returns to its normal condition it causes the ball to be rebounded on the board so that it may continue to roll down the board.

I spoke of other patents here, Design patents. Do 272 you want me to go into those?

Q. 47. No. Just particularly with reference to the Fisher, Dabos and the "Bolo" apparatus.

Now, each of these devices of the prior art to which you referred, are they utilized for the purpose of completing a circuit, an electric circuit upon contact with an object?

A. Yes. They all relate to such a contact switch.

Q. 48. And in accomplishing that result, do each of these devices include a conductor member in the form of a coil spring?

A. Yes, they all have coil springs that is adapted to be flexed by the engagement of an object with the device to close the switch.

Q. 49. That is also true of the device of the Nelson patent, is that correct?

A. That is right, the Nelson patent has a coil spring that is adapted to be fixed by a ball rolling on the table which causes the contact to be made and to indicate a signal.

Q. 50. Now, each of these devices that you referred to in the prior art, including the "Bolo" contact switch, also includes a companion or complementary conductor means, do they not?

A. Yes. By reason of their being switches, they would have to have a companion contact member.

Q. 51. And in each of these devices, is that companion conductor means engaged by the coil spring 273 when the coil spring is flexed by an object?

A. Yes, that is right.

Q. 52. Now, refer to your book of prior art patents, 2,118,037—

The Witness: Whose patent is that?

Mr. Threedy: I believe that is the Hooker or the Bechtol patent.

Mr. Ooms: The Fischer.

Mr. Threedy: The Fisher? May I see your book for a minute?

Q. 52. (Continuing.) That should be No. 2,037,108, the Bechtol patent, Mr. Ooms.

Did you make the original drawings of the application on which that patent issued?

A. Yes, I made the original on this particular application.

Q. 53. And from what did you make those drawings or use as a guide?

A. An actual—

Mr. Ooms: I object to that. That has nothing to do with this case. Here is an unpleaded patent that is offered to show the state of the art, and it is perfectly agreeable to show the date of publication, but to go back and show something that is not noticed or anything else, I think it is wholly improper.

Mr. Threedy: All I propose to show by the question is that it is a fact that this drawing was made by the witness from a commercial device.

Mr. Ooms: I think I should have had notice of it. I don't know anything about this except the patents pleaded.

Mr. Threedy: We are merely showing the state of the art by this patent.

Mr. Ooms: You are not showing the patent now. You are going into a commercial structure of which we have had no notice.

Mr. Threedy: I am just asking the witness if it is a fact, whether this drawing was made by him—

The Court: Which one is that that you are talking about?

Mr. Threedy: That is the Bechtol Patent No. 2,037,108.

The Court: To show the state of the art?

Mr. Threedy: That is correct.

Mr. Ooms: It is not pleaded at all. Now, there is no objection to publication as such, but when he goes back of the publication and begins to talk about a commercial structure which preceded that, I say it is not relevant to the issues here. It is not pleaded.

Mr. Threedy: No harm can be done by the answer to this question that the witness might give.

The Court: You say it is to show the state of the art, and you say he can't do that?

Mr. Ooms: I say he can show the publication but he cannot go back of the publication and tell anything
275 about the physical structure.

The Court: Supposing he had not said anything about it at all, could he tell the physical structure?

Mr. Ooms: No. He cannot, unless it is under common

use. Under the decisions of the Supreme Court, if a thing is under common use and if he knows about it, then it can be offered to show the state of the art, but you cannot show the machine as a state of the art. That isn't something that is known to every mechanic. If you could, it would obviate all statutes requiring us to serve notice.

The Court: It sounds reasonable. It sounds reasonable.

Mr. Threedy: I don't believe the question is of such importance to haggle over. All I care about is that I want to show that the witness made these drawings of that particular machine. I do not think it may be of great importance.

The Court: It may be answered, subject to the objection.

A. I made this drawing from an actual machine that was out at the plant of the A. B. T. Manufacturing Company.

Mr. Threedy: Q. 54. Now, will you refer particularly to Fig. 6 of the patent in question and explain to the Court what the device there illustrated represents?

A. Fig. 6 of this patent, the Bechtol patent, is a cross section through one of the little terrets or cylindrical members seen in Fig. 1 on the play field. You will note that there is a section line 6-6 taken through one of 276 the little circular members on the play field. And this little object on the board is a target or objective at which balls are aimed or at which the player attempts to direct balls. The member is a cylindrical member mounted on the upper surface of the board by means of screws through the flanges that extend down through a hole in the board; and the cylindrical member is surrounded by a rubber cushion which is resilient and in effect will cause any ball that strikes the rubber cushion to be rebounded back upon the surface of the table, and each one of these little hood members has an opening indicated at 41 into which the balls may drop as they are caused to come in from that direction.

Q. 55. When the ball gravitates on the board of the device shown in the patent in question, is the ball capable of engaging the target 39 from any angular approach with respect thereto?

A. Yes, it is freely accessible from all sides and the rubber surrounds, circumscribes a complete cylindrical hood, so that the ball will be rebounded from all angles.

Q. 56. And what is the material from which the target 39 is formed, you say?

A. It is a sponge rubber.

Mr. Threedy: Mr. Ooms may cross-examine, if the Court please.

277

Cross-Examination by Mr. Ooms.

XQ. 57. Mr. Hansen, referring to the Bechtol patent with reference to which you have just testified, I think you said that the material surrounding the terret was of sponge rubber?

A. That is right.

XQ. 58. Where in the patent do you find any reference to sponge rubber?

A. Well, I haven't examined the specification of this patent for some time, but I recall the actual model as being a sponge rubber.

Mr. Ooms: I move to strike the last part as not responsive, as to the "actual model."

The Court: Well, the motion may be entered, dependent upon the result of that other part of your motion.

Mr. Ooms: XQ. 59. Where in the patent do you find any reference to sponge rubber, Mr. Hansen?

A. Well, now, on page 2 of this patent, commencing with a new sentence in line 73, it reads:

"A resilient bumper 45 of rubber or analogous material surrounds each of the housings 43 except at the inlets or mouths 41"—

Now, it doesn't say—

XQ. 60. You have answered the question, haven't you?

A. Yes.

278 XQ. 61. That is the only reference to rubber?

A. Yes.

XQ. 61. (Continuing.) In the patent specification?

A. Yes.

XQ. 62. And the rubber does not extend completely around the target, does it?

A. It does.

XQ. 63. At the portion where the ball strikes it?

A. Yes, it does.

XQ. 64. Well, now, will you read again, "except at the inlets or mouths 41"—what do you find there?

A. On the drawing it shows it completely surrounding, Mr. Ooms.

XQ. 65. That is at the top of the terret, isn't it?

A. That is right.

XQ. 66. It isn't where the ball strikes?

A. That is right.

XQ. 67. If it were completely surrounded, the ball couldn't enter the terret, could it?

A. No. That is correct. I will admit that.

XQ. 68. Then, when the ball does strike it on the angle at which the terret opens, the ball goes in the terret and isn't rebounded?

279 A. That is right.

XQ. 69. So when you previously stated that it would be rebounded there, you weren't stating accurately what the patent shows?

A. That is correct.

XQ. 70. Calling your attention to the Tratsch Design patents to which you referred yesterday, 94,290, 94,291 and 94,714, do you have those before you?

A. Yes, I do.

XQ. 71. None of those shows a switch?

A. No, none of them have. These are all Design patents and merely show the appearance of the upper surface of the board.

XQ. 72. I understand that, Mr. Hansen, I think, as well as you do, but none of them show the switch, do they?

A. No. They do not.

XQ. 73. Calling your attention specifically to Tratsch Design Patent 94,290, the coil springs are supported from their ends, are they not?

A. Yes.

XQ. 74. They lie parallel to the board?

A. Yes, that is correct.

XQ. 75. And the ball can strike them only at the approaches from either the front or one of the two sides?

A. That is correct.

280 XQ. 76. It is not pendantly supported above the board, is it?

A. Well, I think it can be said to be pendantly supported. It is suspended—

XQ. 77. Well, we are going to talk some more about pendantly.

The Court: What are you talking about now?

The Witness: He is speaking of the coil springs shown in Design Patent 94,290.

The Court: All right, go ahead.

Mr. Ooms: XQ. 77. (Continuing.) What do you understand by the word "pendantly"?

A. Why, anything that is supported from one end and held in a position against gravity is dependent.

XQ. 78. Is the bowl on the light that is before the Court that is mounted on that standard held pendantly?

A. No. That is supported from the underside.

XQ. 79. Well, to be pendantly supported it must be supported from the upper end, must it not?

A. It must be, yes.

XQ. 80. Like the pendulum which has the same root to the world?

A. Well, as I recall the definition of "pendant", it can—the definition of "pendant" is anything that is held in a position extending from or from some particular point against the action of gravity.

281 XQ. 81. Would you say, then, that something that is held in an absolutely horizontal position from the wall of the room would be pendantly supported?

A. I would think so, yes.

XQ. 82. Do you have any justification for that definition?

A. I don't have a dictionary with me, so I can't refer to it.

XQ. 83. You know what the word "suspend" means, do you not?

A. Yes.

XQ. 84. It means to hang, does it not?

A. That is correct.

XQ. 85. The word "depend" means to hang from, doesn't it?

A. That is right.

XQ. 86. And you still believe the word pendantly means anything that is supported in such a position that it is held against the forces of gravity?

A. That is right.

XQ. 87. Now, something supported beneath, such as that table on the Court's bench, is also held and sustained against the force of gravity, isn't it?

A. Yes, of course, anything that is supported up away from another object is held there against the action of gravity.

XQ. 88. You think that is pendantly supported?

A. I said that it was not before, not that shade.

XQ. 89. It meets with your definition, does it not?

282 A. No. I think not.

XQ. 90. Well, if you tilted it at an angle of 45 degrees, is it pendantly supported?

A. No. It would still have a tendency to support it from the bottom at 45, but if it were extended at a right angle or parallel to the room and it were merely hanging or being supported against falling by the rims of that outer edge there, and the weight not being directly on the outer edge, but merely hanging from that outer edge, I would say that it would come within the definition that I have given.

XQ. 91. Then, a book lying over the edge of a table would be pendantly supported?

A. No, because it would have to have support directly on the table to sustain itself on the table.

XQ. 92. Well, if you hang, say one-third of it over the end of the table, is it pendantly supported?

A. No. It is still supported on the table directly there.

XQ. 93. But you maintain that the word pendant is not limited to something that is supported from its upper end?

A. Well, I would say that it is supported from an end that is either substantially at a parallel plane to which the object is mounted or from the point above that line.

XQ. 94. So, it would be anything that was supported at an angle, at a horizontal angle or something less than that?

283 A. Yes, that is right.

XQ. 95. Now, examine Tratsch Patent No. 94,291. I think you pointed out some small bumpers that are shown in Fig. 2, in the small coil springs nailed down to the board, is that correct?

A. That is right.

XQ. 96. Are they pendantly supported?

A. No. They are supported right on top of the board and held in position by the nail.

XQ. 97. The same thing is true with respect to the coils in Tratsch Patent 94,714, isn't it?

A. Yes. Each of those coil springs has a nail through it and is supported in a vertical condition on top of the board.

XQ. 98. That isn't pendantly supported?

A. No. It is not.

XQ. 99. Are they under compression against the board?

A. There is a slight compression there, yes.

XQ. 100. They are not free to swing in any way?

A. Well, it all depends on how they are tacked down.

As a rule, they are tacked down so that the top and bottom convolutions of the coil springs are engaging respectively the board and the head of the nail and the spring has a certain amount of resiliency so that a ball striking it will be cast away by the resiliency of the spring.

284 XQ. 101. But it is the resiliency that is entirely limited to that portion of the spring between the top and bottom?

A. That is right.

XQ. 102. The entire spring is not displaced?

A. There is no movement at the top end or at the bottom of the spring. It is only the central convolutions of the spring that flex.

XQ. 103. It is not the movement that you find in the spring of the Nelson device where the entire spring is free to swing about its support?

A. Well, I would say it accomplishes the same result.

Mr. Ooms: I did not ask you that, Mr. Hansen. I move that be stricken as not responsive.

The Court: Strike it out.

Mr. Ooms: XQ. 104. I say, it is not the movement that you find in the Nelson spring, is it?

A. Yes. It is a flexing movement.

XQ. 105. Is the spring in the Nelson device held in the base so that the base does not move?

A. No. It is not. The base is—

XQ. 106. The spring in the Nelson device moves about its pendant support, does it?

A. The lower end does, yes.

XQ. 107. It swings, doesn't it?

A. The lower end swings, yes.

285 XQ. 108. That isn't true of these bumper springs that you have been referring to?

A. No. I have said that they do not swing.

XQ. 109. Are you an engineer, Mr. Hansen?

A. Well, I have been in the practice of engineering, yes.

XQ. 110. Are you educated as an engineer?

A. Yes. I attended the Armour Institute of Technology and studied civil engineering there.

XQ. 111. Now, let me ask you this question: comparing the motion of the spring, assuming we had two springs of the same size and one is pendantly supported and the other is so supported that both ends are immovable, fixed, and you strike that spring at the same posi-

tion, approximately in the middle of its length with an object, which is the most resilient, the one that is pendantly supported or the one that is immovably supported?

A. The most resilient one would be the pendantly supported spring due to the fact that the fixed mounting at the bottom would have a tendency to cut down the resiliency, but that is merely a matter of degree, I would say, of how much.

XQ. 112. But there is an actual observable difference?

A. There is a difference, yes.

XQ. 113. And as you strike a spring which is 286 pendantly supported, you set up in that spring a vibration, do you not?

A. Yes, it would vibrate.

XQ. 114. And there is a vibration in the bumper spring set up?

A. That is right.

XQ. 115. Which has the longer period of vibration?

A. I would say the pendantly supported spring would vibrate longer because it has nothing at the lower end to obstruct that vibration.

XQ. 116. There is no question about that, is there?

A. No. There isn't.

XQ. 117. Now, will you examine the Fisher Patent No. 501,777. I think you stated with respect to Defendants' Exhibit No. 31 on your direct examination yesterday, that this device was substantially as shown in the patent to Fisher, is that correct?

A. Yes, I said that.

XQ. 118. And I think you also called attention to the final paragraph in the Fisher specification, that the device was "exceedingly simple", so that "it may be readily transported from place to place, and it is capable of being expeditiously applied to any article"—I think you referred to that language and stopped there. The paragraph proceeds: "wherein it is desirable that an alarm should be sounded when the article is unduly tampered with."

287 A. I think I read that complete paragraph, Mr. Ooms.

XQ. 119. At one time you did, but I think subsequently you didn't. Fisher's is a Burglar-Alarm, is it not?

A. Yes, it is.

XQ. 120. And in order that it may be readily transported from place to place and expeditiously applied, he shows it constructed as a single unit, does he not?

A. Yes, the same as we find in the Exhibit 32, I believe it is.

XQ. 121. But it is not like the device you have in your hand, Defendants' Exhibit 31, is that it?

A. This is Defendants' Exhibit 31, yes.

XQ. 122. You have removed the base from Fisher, have you not?

A. I have removed the triangular base and substituted a wooden base in the form of a table.

XQ. 123. You mean the diamond shaped base of Fisher?

A. Yes, the diamond shape.

XQ. 124. The Fisher patent is very specific about how that base is to be constructed, is it not?

A. I don't think it is so specific. It merely says, that it "is preferably made somewhat diamond shape,"—"preferably made" so.

XQ. 125. That refers to the form, but the entire invention is described as composed of a base plate made of insulating material?

288 A. That is right.

XQ. 126. Upon which there are certain fixed metal plates?

A. That is correct.

XQ. 127. You haven't put those into Defendants' Exhibit 31, have you?

A. The metal plates are not on this exhibit, no.

XQ. 128. All you took from Fisher was the spring and the eyelet through which the spring passes?

A. That is right.

XQ. 129. And then you have a simple electric switch?

A. That is correct. It is an electric switch.

XQ. 130. You have never seen that device mounted on a—

A. But it is the same electric switch that is shown in the patent.

XQ. 131. I understand that thoroughly, but you have eliminated most all other things?

A. I have eliminated the connecting members and wiring in the electric switch.

XQ. 132. You have also eliminated the base?

A. I think there is a base on this.

XQ. 133. You have substituted another base, you haven't used the shape of Fisher?

A. Not the exact form of base.

XQ. 134. Fisher points out a certain type of base which is diamond shaped.

289 A. Yes.

XQ. 135. You haven't a diamond shape base?

A. No, not on this model.

XQ. 136. You haven't a base made of insulating material with brass plates on it?

A. I have a base of insulating material but not a brass plate on it.

XQ. 137. In other words, the answer is simply "No" to my last question?

Mr. Threedy: If the Court please, I would like to have the witness answer the question.

Mr. Ooms: I would like to have the witness answer it.

The Court: XQ. 138. Is it or isn't it?

A. It isn't the exact form that is shown, I have said that to counsel.

Mr. Ooms: XQ. 139. Now, let us get back to this Fisher patent where he says that "In carrying out the invention the device consists of a base plate A,"—

The Witness: Where is that?

Mr. Ooms: XQ. 139. (Continuing.) Beginning with line 42, in the first column, on page 1—

The Witness: Yes, I have it.

Mr. Ooms: XQ. 139. (Continuing.)—"which may be of any desired shape, but is preferably made somewhat diamond shape, as illustrated in the drawings. The base is made of an insulating material, as for instance hard
290 rubber, and at opposite sides thereof metal plates 10, are located, the plates being preferably of copper or of a metal which is a good conductor of electricity."

Now, you do not have that base that Fisher has just described; do you?

A. No, I do not.

XQ. 140. And a little further in the patent, commencing in line 57, Fisher describes these brass plates, "and two metal screws," designated by the number 12, which pass "through each end of each plate and through the base." You don't have those, do you?

A. No, sir.

XQ. 141. All you have taken from Fisher is the coil

spring with the mounted one end and the eyelet through which it passes?

A. That is correct.

XQ. 142. And Fisher intended it for a burglar alarm?

A. He did.

XQ. 143. It was to be operated by a swinging door or an uplifted window sash?

A. That is correct. That is the way in which he shows it in his drawing.

XQ. 144. Now, taking the device which you have in your hand, Defendants' Exhibit No. 31, supposing that were struck with a ball at the end at which the spring 291 is mounted, say where the screw 13 enters the board and supports the spring, would that operate that switch?

A. No. It would not if the ball struck that screw itself, it would not cause the switch to close.

XQ. 145. Supposing it struck the spring broadside but right near the screw, within a quarter of an inch of the screw, would that operate the switch?

A. If it flexed the spring sufficiently to touch the loop in the ring, it would.

XQ. 146. There are certain places where a ball striking that spring would not close the switch, isn't that true?

A. Well, I haven't tested it, but I think if you do get too close to the binding post, there would not be much of a flex on that particular spring.

XQ. 147. You not only think that, but you know that, don't you?

A. I am pretty sure of it, yes.

XQ. 148. I think in referring to that Fisher device, you said that Fisher didn't show it as mounted in your Defendants' Exhibit No. 31, but that the Hooker patent, with its Figures 5 and 6, shows springs mounted so that they will be engaged by a ball on the playing board. That is correct, isn't it?

A. I don't—

XQ. 149. Have you got the Hooker patent there?

292 A. If I said that, I think that what I meant was, and I am pretty sure that I made that statement in regard to the other illustrations of the Fisher patent which you have before you there and not this one that I have here.

XQ. 150. But you did refer to the Hooker patent?

A. I did, yes.

XQ. 151. I understand your distinction; in other words, you referred to the Hooker patent as showing the switch members mounted vertically instead of horizontally?

A. That is right up through a hole in a play field.

XQ. 152. Now, will you look at that Hooker patent which is No. 2,042,786, at Figures 5 and 6. There, you have switch members actually—

A. One minute, please.

Mr. Ooms: Excuse me.

The Witness: Yes.

Mr. Ooms: You have it before you.

The Witness: Yes, sir, I have.

Mr. Ooms: XQ. 152. (Continuing.) You have switch members there that project through holes in the board?

A. That is right.

XQ. 153. And if struck by a ball, the switch will be closed?

A. That is correct.

XQ. 154. And from how many directions can the ball strike that switch in closing it?

293 A. From the one side as shown in Fig. 6.

XQ. 155. Only from the front of the switch, isn't that true?

A. That is right.

XQ. 156. That isn't the coil spring; that is a leaf spring?

A. That is a leaf spring, yes.

XQ. 157. And it is not pendantsly supported in Hooker, is it?

A. No, it is not.

XQ. 158. And what you have done, then, to get Defendants' Exhibit—

The Witness: Just a minute. Just a minute, Mr. Ooms.

Mr. Ooms: I will take care of that, Mr. Hansen. I beg your pardon, Mr. Hansen.

Mr. Threedy: Well, now—

Mr. Ooms: I am examining you. I think you have been in court long enough to understand that your function is to answer questions and not to ask them.

Mr. Threedy: I am not going to object, but I do not like counsel to approach the witness in that manner.

The Court: I thought he wanted to make some further statement.

The Witness: Yes, I did.

Mr. Ooms: I will permit him to do it. Go ahead, but I thought he had broken off and was starting all over again.

The Witness: I said that this spring—that switch in the Hooker structure was not pendantsly supported.

294 Mr. Ooms: XQ. 159. Yes, I understood you to say that.

The Witness: But I would like to point out that the mounting of the springs are from the underside of the board and in that respect, it might be said that it is a pendantsly supported switch in this particular case.

XQ. 160. That conforms to your understanding of the words "pendantsly supported"?

A. Yes, it is suspended from the underside of the board.

XQ. 161. Suspended from the bottom?

A. Yes.

XQ. 162. In other words, a flag pole stuck in the ground is pendantsly supported from the ground?

A. No. No. That is extending upwardly, from the ground.

XQ. 163. Well, isn't this spring extending upwardly from its base?

A. It is extending upwardly from a bracket that is pendantsly supported or suspended from the underside of the board. But I don't think we ought to discuss that any further.

XQ. 164. Well, you brought it up, Mr. Hansen. I am very anxious to find out what your understanding of the word "pendantsly" is, because it happens to be in some of the claims here. You understand the importance of it, do you not?

A. I do.

295 XQ. 165. And you maintain that something which is supported from a horizontal surface and is supported from its edge may be said to be pendantsly supported?

A. I think so, yes.

XQ. 166. I now ask you to examine your Defendants' Exhibit No. 32 which is another exemplification, I believe, of what you understand in the Fisher patent. Now, in that device you have actually taken the switch as constructed by Fisher, have you not?

A. Yes, this is the exact switch that he speaks of as being capable of mobility.

XQ. 167. That is the complete base and the brass plates

and the insulating material and everything shown in Fisher?

A. That is right.

XQ. 168. And you mount that to project through the hole in the bottom of the playing board which I suppose is illustrated by that base, on the basis of what you found in Hooker, is that right?

A. That is right. Merely taking the bracket that is shown in the Hooker patent and mounting the Fisher switch on it, with the coil spring of the Fisher structure extending up through the hole in the board.

XQ. 169. Is the spring in that Defendants' Exhibit No. 32 pendantly supported?

A. No. It is not.

296 XQ. 170. It is supported by a bracket which is fastened to a side wall—

A. It is supported—

XQ. 170. (Continuing.) —or base member, is it not?

A. It is supported by the bracket, yes.

XQ. 171. But that does not come within your understanding of the word pendantly?

A. No. In this particular instance, it is extending upwardly from a support at its lower side.

XQ. 172. But the support is horizontal, isn't it?

A. The support is horizontal, yes.

XQ. 173. Then, it is like the device in Hooker that you have testified to, the switch in Hooker which is also supported from a horizontal and you said that was pendantly supported?

A. The whole structure I would say is suspended from the underside of the board.

XQ. 174. Now, let us stay with the spring a minute. Is that spring pendantly supported?

A. No. The spring is not. The spring is extending upwardly from the binding post on the base plate.

XQ. 175. Now, look at the Hooker patent. Isn't that spring extending upwardly?

The Court: On the Hooker patent, he said that it might be said that the switch might be pendantly supported because the supports were attached to the lower side
297 of the board.

The Witness: That is right.

The Court: He did not say the spring was pendantly supported.

Mr. Ooms: XQ. 176. In the same sense, isn't this one pendantly supported?

A. I said that the switches of the Hooker patent might be said to be pendantly supported in that they were suspended from the underside of the board.

XQ. 177. Isn't that the situation with respect to this (indicating model)?

A. Now, you asked me a question regarding the particular coil springs of the Fisher patent as exemplified in Defendants' Exhibit No. 32, and I say as to that, that the coil spring itself is extended upwardly from the binding post on the base.

XQ. 178. Well, then, probably I misunderstood you. Now, with respect to Hooker, you don't mean to say that the spring leaf which is struck by the ball—

A. No. They are fixed to the bracket which is suspended from the underside of the board.

XQ. 179. The entire structure being supported—

A. Yes.

XQ. 179. (Continuing.) —is pendantly supported?

A. That is correct.

XQ. 180. And that is also true with this device?

298 A. That is right.

XQ. 181. Now, calling your attention to the Dabos French patent, do you have that before you?

That also shows a burglar alarm, does it not?

A. Yes, that is an electric switch for a burglar alarm, that is right.

XQ. 182. Substantially the same device as Fisher except that here, the second contact member is inserted within the coil instead of surrounding the coil, isn't that true?

A. Yes. It is completely circumscribed by the coil spring.

XQ. 183. And there is no suggestion in the Dabos drawings or patent of the device mounted in the manner in which you have mounted Defendants' Exhibit No. 34, is there?

A. I think I said that the suggestion for that was found in Hooker and that Dabos merely showed some adaptations of his switch, and that I brought the two together and showed them as exemplified in the drawing and the model that you have before you.

XQ. 184. In each of these three physical exhibits, Defendants' Exhibits Nos. 31, 32 and 34, you have combined

what you have found in Hooker with what you have found in Fisher and Dabos?

A. Not in Defendants' Exhibit 31. Hooker doesn't suggest anything as to Defendants' Exhibit 31.

299 XQ. 185. I beg your pardon. I mean just Defendants' Exhibits 32 and 34.

A. Defendants' Exhibits 32 and 34.

XQ. 186. And you have combined Hooker in respectively Fisher and Dabos?

A. That is right.

XQ. 187. Now, in the Dabos patent, is there anything to suggest that the spring itself is at any time to be struck by an object which is to close the contact in the Dabos device as you have put it in Defendants' Exhibit?

A. No, the spring itself is not struck, but the tip end of it, the upper end or the free end of the spring is struck by the object or an obstacle.

XQ. 188. And you have put that tip into the device, Defendants' Exhibit No. 34, although it serves no function there, does it?

A. It merely forms a final touch to the actual spring as shown in Dabos. I wanted to follow Dabos as close as I could.

XQ. 189. I am asking you if it performs any function in Defendants' Exhibit No. 34?

A. I don't think it performs any function in that exhibit unless the diameter of the ball was large enough so that it would have to strike that tip rather than the spring itself.

300 XQ. 190. It would have to be—

A. It is an extension of the coil spring, that is about all it amounts to.

XQ. 191. It could be left off without affecting the operation of the structure?

A. The coil spring would still perform its function if it were left off, yes.

XQ. 192. When you constructed this device, Defendants' Exhibit No. 34, you had to be very careful about lining that coil spring within the outer coil spring?

A. Yes, of course they have to be kept apart.

XQ. 193. Supposing somebody abuses this and jams either the inner one or the outer one so that they become contacted and remain there, how would you adjust them?

A. You would have to bend them back into their position.

XQ. 194. It takes a little pressure in the fitting, doesn't it?

A. Oh, I don't think it takes pressure. You just bend them until they don't touch one another. You don't have to get in there with mikes or anything like that.

XQ. 195. No, but you have to work pretty carefully within rather narrow limits, do you not?

A. Well, yes. That particular model I would say is a fine spring and for that reason, you might have to use a little care in the way you handled it.

XQ. 196. Now, in the "Bolo" device, Defendants' Exhibit No. 35, being the drawing thereof which you have identified, that spring is also under compression, is it not?

A. Yes, there is a slight compression on that spring.

XQ. 197. And it is necessary that both ends be held to their respective supporting surfaces?

A. Well, of course, the coil spring is soldered up on the underside of the base and in that respect it is depending down from that base and then it is fixed at its lower convolution to the pin which supports the ball, pin 1' at the upper end. Now, the reason for its compression is that there is a point between the lower end of the bowling pin which is seated up on that cup shaped portion of the base and the spring has a tendency to hold that bowling pin down on that pedestal.

XQ. 198. So the spring has to be under some compression there?

A. Yes.

Mr. Threedy: I haven't your small model, Mr. Ooms.

Mr. Ooms: That is all right.

The Witness: I think you will find a model of the "Bolo" pin inside the "Bolo" game cabinet, in the key compartment.

(Mr. Threedy produces object.)

Mr. Threedy: That hasn't been offered in evidence.
302 If you want to offer it, I have no objection.

Mr. Ooms: XQ. 199. Is that spring pendantsly mounted or not, the spring in the "Bolo" device?

(Mr. Ooms hands object to the witness.)

A. Yes, it is. It is soldered up on the underside of the board, up on the underside of the base member, your Honor will notice spots of solder in these little tongues to keep that from coming off. It is held on there.

XQ. 200. Is it soldered up there?

A. Yes, it is soldered.

XQ. 201. And it does not project above the board at all, does it?

A. No. It is not above the board.

XQ. 202. The spring was never struck by the ball rolling across the board?

A. The spring is—

Mr. Ooms: Now, yes or no, Mr. Hansen.

A. The spring is caused to flex by the action of the ball, but it isn't—

Mr. Ooms: I move it be stricken as not responsive.

The Court: Strike it out.

The Witness: —but it isn't struck by the ball itself.

Mr. Ooms: Read the question.

(XQ. 202 read by the reporter.)

A. The spring itself is not struck by the ball.

303 Mr. Ooms: XQ. 203. Does any portion of the spring member enter into contact with the companion contact member here in the form of the bracket with the annular opening?

A. Well, in that the lower convolution of the coil spring is soldered to that central spring which extends down, pin number 4, I would say that by reason of that connection it comes into contact with the annular structure. Otherwise, the "Bolo" pin structure would not work as a switch.

Mr. Ooms: Did you understand my question?

The Witness: Your question?

Mr. Ooms: Yes.

The Witness: I think I did, yes.

Mr. Ooms: Would you please answer it yes or no? It can be answered yes or no.

The Court: What is the question?

(XQ. 203 read by the reporter.)

A. No part of the convoluted spring does that, no.

Mr. Ooms: XQ. 204. Is there in the "Bolo" device a substantially vertical standard anchored in the table?

A. No. There is no vertical standard in that. The support in this device is horizontal, if anything.

XQ. 205. And then, of course, there is no such standard with its upper end extending a substantial distance above the top surface of the table either, is there?

A. No. There is no such standard.

304 XQ. 206. And is there any standard—is there any standard which might be surrounded by a coil spring?

A. No. There is no such standard in the "Bolo" structure.

XQ. 207. And then there is no means, is there, of carrying the spring pendants from the upper portion of the standard above the table?

A. Well, in the respect that there is no standard, there is no means for carrying it above the table, that is correct.

XQ. 208. Nor any spring to be resiliently flexed when bumped by a ball?

A. The spring itself being not bumped by the ball cannot be said to be flexed when bumped by the ball, but in this instance, the spring flexes by action of the ball on the particular pin and in that respect I would say that the coil spring would be analogous to the coil spring of the Nelson patent. It accomplishes the same function.

XQ. 209. You say it accomplishes the same function, although it is never struck by the ball?

A. That is right.

XQ. 210. Although it never forms part of the circuit?

A. Yes, it does form a part of the circuit.

XQ. 211. In what way?

A. Why, you have a lead number 7, if you will refer to the drawing, a lead in which that is connected to one side of your electrical circuit and by that lead you go through the convolutions of the coil spring to make contact with the pin 4.

XQ. 212. But you also go through the inverted U-shaped pin base, the brass rod on which the pin is mounted?

A. Yes, you do.

XQ. 213. And the pin 4?

A. You do, but there is an enlarged opening at the upper end of that cup-shaped member so as to allow a free motion of the pin that rides inside there, and therefore there is not a good contact there. You will find that the coil spring is soldered to the underside of the base 2 and for that reason it has a more definite or positive contact in the circuit.

XQ. 214. It is also soldered to the other end, isn't it?

A. Yes, it is.

XQ. 215. And it is a portion of the circuit, it is just an intermediate portion and it isn't the portion that forms final contact?

A. That is right, it is in the circuit.

XQ. 216. You still say that although it is not bumped

by the ball and although it is not the contact member that finally actually contacts, the companion contact member, that it performs the same function as the spring in the Nelson patent?

306 A. I would say so, yes.

XQ. 217. Does it do so in the same manner?

A. Not in the same particular form, but it completes—it is an element in the completion of the circuit to the closing of the switch, and in that respect, it substantially does it in the same manner.

XQ. 218. But it depends on other agencies to make it operate, does it not?

A. Yes. It has an extension on it and I think the extension is somewhat similar to the extending leg 19 of the Nelson structure.

XQ. 219. When you say it has an extension on it, you mean—

A. The fact that the leg 19 is an integral part of the coil there, I don't think changes the position with respect to this one being soldered to the end of the coil.

XQ. 220. The leg 19 is comparable, then, to the wire 4 in your drawing, Defendants' Exhibit No. 35?

A. That is right, it is one side of the circuit closing switch.

XQ. 221. What do you find in the Nelson device that is comparable to the pin in the "Bolo" device, the bowling pin?

A. The bowling pin of the "Bolo" device you are speaking of—

Mr. Ooms: Yes.

The Witness: —and the Nelson structure. Well, 307 there is no bowling pin in the Nelson structure. The bowling pin of the "Bolo" device is merely an extension that is mounted on the coil spring to take the resiliency of the coil spring when the pin is struck by a ball. There is no such pin in the Nelson structure.

Mr. Ooms: XQ. 222. Do you suggest that the bowling pin in the "Bolo" device is merely complementary to the spring or is the spring complementary to the bowling pin?

The Witness: I don't think I understand you.

Mr. Ooms: XQ. 223. Well, what is the operative element in the "Bolo" game which makes the switch work?

A. The coil spring.

XQ. 224. But it cannot work and will not work until a bowling pin is struck by a ball?

A. That is right.

XQ. 225. And you find nothing in the Nelson device that compares with the bowling pin, do you?

A. No, I do not.

XQ. 226. And in the "Bolo" device, you find absolutely no stationary member above the board, do you?

A. You mean in it that would answer to the purpose of the post 11 of Nelson structure, is that what you have in mind?

Mr. Ooms: Yes.

A. No. There is no such post on the "Bolo" device.

308 XQ. 227. What is it? If we can use the term obstacle, that is a familiar term in your trade, isn't it?

A. That is right.

XQ. 228. What is the obstacle in the Nelson device?

A. You mean the objective, now?

XQ. 228. (Continuing.) That is right.

A. The objective is the target member on the top of the board.

XQ. 229. Well, that is the thing for which you sight, but what do you try to strike with the ball?

A. You try to strike the coil spring.

XQ. 230. And what do you try to strike in playing the "Bolo" game?

A. Try to strike the bowling pin.

Mr. Ooms: That is all.

Mr. Threedy: There are just one or two questions, if the Court please.

Redirect Examination by Mr. Threedy.

RDQ. 231. Mr. Hansen, referring to the Nelson device shown in Fig. 2, does any part of the convolutions of the spring of the Nelson device engage the companion ferrule which is indicated at 22?

A. None of the convolutions strike the ferrule, no.
309 It is the leg 19 that extends down from the lowermost convolution of the coil spring 18 that does the actual contacting between the ferrule and the coil spring.

RDQ. 232. Now, from your understanding of the Nelson patent, what is the purpose of the standard 11 as shown in Fig. 2?

A. To support the coil spring.

RDQ. 233. Now, in the "Bolo" device as shown in De-

defendants' Exhibit No. 35, what is the function of the element that is marked by the reference character 2?

A. That is to support the coil spring and the bowling pin 1 at the upper end of the cup.

Mr. Threedy: Pardon me for just one moment, please. (Whereupon a short intermission followed.)

Mr. Threedy: That is all, if the Court please.

Mr. Ooms: That is all.

Mr. Threedy: I am ready to call the next witness.

The Court: We will take a short recess.

(Whereupon a short recess was taken.)

The Court: You may proceed.

Mr. Threedy: If the Court please, before we swear the witness, I would like to introduce my exhibits at this time.

On behalf of the defendants, I will offer in evidence the drawing, Defendants' Exhibit No. 30, which is an illustration of Fisher Patent No. 501,777; the physical exhibit, Defendants' Exhibit No. 31; Defendants' Exhibit No. 32; a drawing, Defendants' Exhibit No. 33, which illustrates the Babos disclosure; the physical exhibit, Defendants' Exhibit No. 34; the drawing, Defendants' Exhibit No. 35, which illustrates the "Bolo" ball contact switch, and as Defendants' Exhibit No. 39 the drawing, the enlarged drawing of Fig 2 of the Nelson patent.

Mr. Ooms: No objection.

The Court: They may be received.

(Whereupon said exhibits, so offered and received in evidence by the Court, were marked as DEFENDANTS' EXHIBITS NOS. 30, 31, 32, 33, 34, 35 and 39, respectively.)

311 HARRY J. MABS, called as a witness on behalf of the defendants, being first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Threedy.

Q. 1. State your full name, please.

A. Harry J. Mabs.

Q. 2. Where do you reside, Mr. Mabs?

A. 434 Surf Street.

Q. 3. How old are you?

A. 51.

Q. 4. What is your present occupation, Mr. Mabs?

A. Experimental engineer.

Q. 5. And with whom are you now employed, if you are employed?

A. D. Gottlieb & Company.

Q. 6. How long have you been engaged as an experimental engineer?

A. You mean with D. Gottlieb & Company?

Q. 7. No. For how long a period of time have you been occupied as an experimental engineer?

A. About four and a half years.

Q. 8. And how long have you been with D. Gottlieb?

A. A year and a half.

Q. 9. Is D. Gottlieb in the City of Chicago?

312 A. Yes.

Q. 10. State briefly just what are your duties as an experimental engineer.

A. Designing pin games.

Q. 11. Is your occupation as an experimental engineer confined to the pin game industry?

A. Right now it is, yes, sir.

Q. 12. Are you acquainted with the various associations of the pin game industry?

A. I believe so.

Q. 13. Mr. Mabs, have you ever heard of an association called the Coin Machine Suppliers Association?

A. No. I have not.

Mr. Ooms: I object to the question whether he ever heard about them. Excuse me. That is a little premature.

Mr. Threedy: Yes. You may answer.

The Witness: No. I never have.

Mr. Threedy: Q. 14. Are you the Mr. Harry J. Mabs who on or about April 10, 1935, jointly with one Ralph Neufeld filed an application in the United States Patent Office for Letters Patent on a pin game?

A. Yes, sir.

Mr. Threedy: Now, I ask the reporter to mark this certified copy of a File Wrapper and contents of an application bearing Serial No. 15,521, as Defendant's Exhibit No. 37.

313 (Said File Wrapper and Contents, in the matter of the Forfeited and Abandoned Application of Ralph Neufeld and Harry J. Mabs, filed April 10, 1935,

Serial Number 15,521, for Improvement in Pin Ball games, was marked as Defendants' Exhibit No. 37.)

Mr. Threedy: Q. 15. I refer your attention, Mr. Mabs, to a certified copy of a File Wrapper marked Defendants' Exhibit No. 37 and bearing Serial Number 15,521, and I direct your attention to the oath of this application which appears as page 24 of the same, and ask if your signature appears thereon?

A. Yes, sir.

Q. 16. Now, will you examine the application and state whether or not that is the application that you and Mr. Neufeld filed in the United States Patent Office?

A. Yes, sir.

Q. 17. Did Mr. Neufeld sign the application in your presence?

A. Yes, sir.

Mr. Threedy: May I have it, please.

Q. 18. I want to call your attention to page 26 of the application and I invite your attention to Fig. 18 thereof and I will ask you to explain to the Court what that Figure represents and explain its construction and operation. Would you put it up so the Court can see what you are referring to?

314 A. Fig. 18 is a pin suspended from a playing field by a ball joint and held erect by a spring. There is also a ring around the lower part of the pin under the board so that when a ball strikes this pin, the pin will strike the ring, forming a circuit, closing a circuit as a switch.

Mr. Ooms: Does your Honor want a sheet of those drawings? We have some extras here. That is the sheet he is now referring to.

Mr. Threedy: Q. 19. Now, referring to page 25 of Defendants' Exhibit No. 37, explain what the device of Fig. 1 illustrates. May I have that, Mr. Ooms, please?

Mr. Ooms: Yes.

Mr. Threedy: Thank you.

The Witness: A. It illustrates a playing field of a pin table with these pins coming through the board so that as the ball progresses down the incline of the board, it strikes these pins, closing circuits as it goes down.

Mr. Threedy: Q. 20. Is the material of the pins that you refer to on Fig. 1 of the application of a resilient material?

Mr. Ooms: Object to that unless there is something in

the specification about it, Mr. Threedy. If you can point out there is something in the specification about it, why, it is all right.

Mr. Threedy: I will strike the question, rather than waste the time, if the Court please.

Q. 21. When a ball engages one or more of the 315 pins on the board of the device shown in Fig. 1, Mr.

Mabs, what effect is there between the pin and the ball?

A. The ball striking a pin rebounds from the pin.

Q. 22. Is the ball still in play after striking one pin?

A. Yes, sir.

Q. 23. Does the ball continue to play, striking pins, from pin to pin—

A. Yes, sir.

Q. 23. (Continuing)—that may be in the path of the ball?

A. Yes.

Q. 24. Now, did you alone or jointly with Mr. Neufeld ever construct a machine in accordance with the disclosure of your application?

A. Yes, sir.

Mr. Ooms: I object to this question, your Honor, and any further evidence with reference thereto. This is not pleaded as an anticipation.

Mr. Threedy: I beg your pardon, Mr. Ooms.

Mr. Ooms: The pleading is very specific on this.

Mr. Threedy: There is a special paragraph on it, to my recollection.

Mr. Ooms: Here is the pleading, by amendment:

"8b. Defendant avers that the said Letters Patent No. 2,109,678 and each and every claim thereof are invalid and of no force and effect in law for the 316 reason that the alleged improvements described and claimed in said Letters Patent do not constitute invention as contemplated by the Patent Statutes of the United States now in force, but are the mere carrying forward of that shown and described in a certain application filed in the United States Patent Office long prior to the filing of the application on which patent No. 2,109,678 issued, said certain application having been filed by Ralph Neufeld and Harry J. Mabs, Serial No. 1552, and the said application being of record in the United States Patent Office, a certified copy of said ap-

plication to be produced in Court as and when this Honorable Court may require."

Now, there is a pleading that this application is produced, but there is absolutely nothing about Neufeld and Mabs having been prior inventors. Under the statute, if that was intended to be pleaded, it would have set forth their addresses and residences, and none of that is done here.

Now, I am relying on this application as being the pertinent proof here and I think anything as to what he did outside of what was shown in that application is not pertinent in this case.

Mr. Threedy: I think it is collateral to what he 317 did, so far as producing an invention it would be, or a device. An application is a constructive reduction to practice.

Mr. Ooms: The statute is very specific.

The Court: The statute is quite specific, as I have had occasion to observe each time this matter comes into controversy. There is a controversy about it about once in every three cases.

Mr. Ooms: The statute says that notice as to proof of previous invention—that is apparently what he is trying to prove.

Mr. Threedy: Now, if your Honor please, I am not producing this application or device of the application as an anticipatory device. I am producing the application and as collateral to the application device to show that under the contention of the defendants that the invention of Nelson did not amount to an invention over what was disclosed in this application and surely, there can be no harm in establishing by this witness that he not only filed this application but that he made a device in accordance with the application.

The Court: Well, that statute is there.

Mr. Threedy: There is no argument with regard to the statute, if the Court please.

The Court: Let me see that statute. What is that book?

Mr. Ooms: It is Title 35, Section 69. It begins at the bottom of the right-hand page.

(Whereupon a short intermission followed.)

318 The Court: Well, I will receive it subject to the objection. You may discuss this matter in brief.

Mr. Threedy: Yes.

The Court: I may say to you, there is a case in the Circuit Court of Appeals which has been up there for about a year and a half or two years which I know something about, regarding the need of giving notice of matters relied upon as showing the state of the art. The matter was argued and briefed and I held what seemed to be the law on the cases, but that case is in the Circuit Court of Appeals and has been there for about two years, and it is a very simple matter.

Mr. Threedy: Yes, sir.

The Court: And I can't think of any other question in it.

Mr. Threedy: I may state to your Honor there was a case which your Honor heard, *Oswald vs. Bloomfield*, that may have been the case your Honor referred to. I do not think the appeal ever went up, though, but in that case defendant's counsel offered in evidence, to show the state of the art, I think it was in the form of a prior device, and the Court admitted the evidence over the objections of the plaintiff's counsel on the grounds of lack of notice and your Honor permitted the evidence to be admitted evidence. Now, I don't think counsel takes issue with me that the state of the art may be shown without notice.

Mr. Ooms: There is no question about it, the 319 state of the art, and the Supreme Court I think has been very careful in its decisions to apply that rule where something was notoriously and widely used so that everybody in the art knew it.

Mr. Threedy: That case was regarding a counter rack.

The Court: Yes, that counter rack case is still in the Circuit Court of Appeals.

Mr. Threedy: I do not think the appeal was ever perfected.

The Court: The Circuit Court of Appeals is keeping it there.

Mr. Threedy: That was my understanding, that they came to some agreement.

Mr. Ooms: I understood that appeal was never prosecuted.

Mr. Threedy: Yes, that is right. It involved a counter rack.

The Court: What was wrong with that decision?

Mr. Ooms: Was that the decision in which you admitted it?

The Court: Yes.

Mr. Ooms: I do not recall what particular matter you admitted to show the state of the art. My recollection is that it was published. I don't know.

Mr. Threedy: No. There was a counter rack brought in as being used either by a Chicago restaurant company, either Chicago or Detroit. I originally happened to represent the defendant in the case and I was familiar with it from that angle.

320 The Court: Was that case disposed of? It is my recollection that it is still there.

Mr. Threedy: No. My recollection is that notice of appeal was served and the record never perfected. Whether the appeal was dismissed or not, I don't know, but I don't think the record was ever perfected. I think that is as far as it went. That is my understanding of it.

Mr. Ooms: That is my impression of it, also, that the appeal was never prosecuted to conclusion.

The Court: No, but they extended time for filing the record time after time.

Mr. Ooms: They settled it, as I understand.

Mr. Threedy: Yes, they settled it. There were some matters collateral to it, outside of the case, that prompted settlement. I would be glad to look into the matter and let your Honor know.

The Court: I want to know what the law says. I will admit this over objection and subject to objection. You gentlemen can educate me, and also educate me in the state of that case up there, because I want to know.

Mr. Threedy: We will be glad to do that.

Mr. Ooms: We will find out what occurred.

The Court: And what, if anything, was wrong with that decision?

Mr. Ooms: I would like to know what the decision was as to what the art was. I understood you were dealing there with some published patents.

The Court: I want to get it back in my mind. I want to be thoroughly educated on the whole subject.

Mr. Threedy: Will you read the question, please?

(Q. 24. read by the reporter.)

Q. 25. When was this machine constructed, Mr. Mabs, if you know?

A. I believe April, through the months of April and May of 1935.

Q. 26. Have you any way of fixing that date or approximate date?

A. Only I remember that getting a contract to build this game and the contract is signed March 25th—23rd, 1935, and we left here to go to Miami, where it was built, and we waited for the material and I gauge it was about a month when we started after the contract was signed.

Q. 27. With whom was that contract made?

A. Bally Manufacturing Company.

Q. 28. And with yourself and Mr. Neufeld?

A. That is right.

Mr. Threeedy: Now, I ask the court reporter to mark these two photographs as Defendants' Exhibits 38-A and 38-B.

(Said photographs were thereupon marked as Defendants' Exhibits 38-A and 38-B.)

322 Mr. Threeedy: Q. 29. Mr. Mabs, I hand you two photographs which have been marked for identification Defendants' Exhibits 38-A and 38-B, and I will ask you if you can identify the same?

A. Yes, sir.

Q. 30. State what they represent.

A. One represents a picture of this game and myself.

Q. 31. By "this game" you mean the game that was constructed?

A. That is right.

Q. 31. (Continuing.) By Mr. Neufeld and yourself?

A. That is right. And the other one is a closer view of just the game.

Q. 32. Now, the other one your refer to is Defendants' Exhibit 38-B, is that right?

A. Yes, sir.

Mr. Threeedy: You may cross-examine, Mr. Ooms.

The Court: Q. 33. What is this, what is Fig. 18? What is that in Fig. 18?

Mr. Threeedy: Pardon me a moment. What sheet is that on, if your Honor please? Oh, Fig. 18.

The Court: Fig. 18.

Mr. Threeedy: Now, what was your Honor's question, please?

The Court: Q. 33. What is 32 in Fig. 18?

Mr. Threeedy: 32 is a spring which is attached to the lower extended portion of the pin 38 and as shown in Fig. 3—

323 your Honor hasn't that sheet—you will find that the spring is attached to a board. The board is indicated at 33 in Fig. 3. And as I understand, the arrangement is such that when the ball engages with the pin, the pin is pivoted and tensions the spring by expansion. Then, when the ball is caused to rebound by the action of the spring, the spring resumes its normal position, setting the pin in its normal position to rebound the ball back upon the board. Is that a fair statement? Did I make the point clear?

Cross-Examination by Mr. Ooms.

XQ. 34. Mr. Mabs, what finally happened to this application, Defendants' Exhibit No. 37?

A. It was abandoned.

XQ. 35. It never passed to issue in the United States Patent Office, did it?

A. No.

XQ. 36. What patent attorney was prosecuting the application?

A. Mr. Pippel.

XQ. 37. Do you know Mr. Pippel?

A. Yes, sir.

XQ. 38. He is the gentleman sitting here in the court room?

A. That is right.

XQ. 39. Have you ever talked to him about the application?

324. A. When we first took it out, yes, sir.

XQ. 40. Do you recall after the application was filed and in October, 1935, some time after the date of October 12th and before the date of November 6th that year, that there was an action in the Patent Office calling for a division of certain claims in the application?

A. I believe I got a letter from Mr. Pippel to that effect, yes, sir, I think I have it right here.

XQ. 41. Do you have your correspondence with him about that application?

A. Yes, sir.

XQ. 42. Will you see what you can find bearing date between October 12, 1935 and November 6th of that year?

A. This is not a letter from Mr. Pippel. It is a copy of what he received from the Commissioner of Patents and it is dated April 10th. Is that the one you refer to?

XQ. 43. No. I think that date, Mr. Mabs, that you referred to was the date when the application was filed.

A. Oh, yes, that is right.

XQ. 44. But this paper is—

The Witness: June 25th, that is right.

Mr. Ooms: XQ. 44. (Continuing.) This paper is dated August 8, 1935. Do you have anything later than that?

A. No. I never received anything besides this.

XQ. 45. Do you recall being in Chicago between 325 October 12, 1935, and November 6, 1935?

A. Yes, I think I was here.

XQ. 46. Do you recall talking to Mr. Pippel on the telephone about the application?

A. No, sir.

XQ. 47. Do you recall his telephoning you and telling you that he had an action from the United States Patent Office requiring a division of certain claims to the switch?

A. I don't remember, no, sir.

XQ. 48. Did you ever talk to him on the telephone?

A. I do not remember.

XQ. 49. Do you remember this conversation in which he read the actions of the Patent Office to you, referring to this requirement for division and telling you that they were calling on you to cancel certain claims on the switch?

A. No, sir.

XQ. 50. And do you remember your telling him to cancel the claims and stating that the pin lever switch is passe'?

A. No, sir.

XQ. 51. You don't recall that conversation?

A. No, sir.

XQ. 52. You only made the one game that is shown in this photograph, isn't that true?

A. That is all, yes, sir.

XQ. 53. You never went into commercial production?

326 A. Not that I know of, no, sir.

Mr. Ooms: That is all, Mr. Mabs.

Mr. Threedy: No further examination, if the Court please.

(Witness excused).

Mr. Threedy: I would like to offer in evidence at this time the certified copy of the File Wrapper bearing Serial Number 15,521, as Defendants' Exhibit No. 37, and also the two photographs to which the witness testified as Defendants' Exhibits 38-A and 38-B.

Mr. Ooms: There is no objection to those.

The Court: They may be received.

(Said File Wrapper and Contents, in the matter of the Forfeited and Abandoned Application of Ralph Neufeld and Harry J. Mabs, Filed April 10, 1935, Serial Number 15,521, for Improvement in Pin Ball Games, so offered and received in evidence by the Court, was marked DEFENDANTS' EXHIBIT NO. 37.)

(Said photographs, so offered and received in evidence by the Court, were marked DEFENDANTS' EXHIBITS Nos. 38-A and 38-B, respectively.)

Mr. Threedy: If I may interrupt here just one moment, your Honor mentioned something about briefs. Now 327 it happens that there is absolutely nothing in this testimony that goes any further than the application, and I was hoping that we could argue this case at the conclusion of the testimony.

The Court: I haven't had an opportunity to read that testimony.

Mr. Ooms: Well, then, if we could argue it on a rather short date and then possibly just file outline briefs or something of that character—

The Court: Very well.

Mr. Threedy: Well, if we file briefs, I suggest we file proper briefs and not merely outline it, like the law says. There is a good deal involved in this matter.

Mr. Ooms: Well, I defer to the Court's convenience, but I just make that suggestion.

The Court: We will see when we get through with the testimony.

Mr. Threedy: I would like to also introduce into evidence the spring with reference to which the several witnesses have testified, as Defendants' Exhibit No. 40.

Mr. Ooms: No objection.

(Said spring, so offered and received in evidence by the Court, was marked DEFENDANTS' EXHIBIT NO. 40.)

328 JERRY C. KOCL, called as a witness on behalf of the defendants, being first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Threedy.

Q. 1. State your full name.

A. Jerry C. Koci.

Q. 2. What is your address, Mr. Koci?

A. 404 Selborne Road, Riverside.

Q. 3. And how old are you?

A. 29.

Q. 4. What is your present occupation?

A. I am chief engineer for the Chicago Coin Machine Manufacturing Company.

Q. 5. How long have you been engaged in the field as a chief engineer?

A. Close to five years.

Q. 6. And how long have you been engaged as such by the Chicago Coin Machine Company?

A. Four and a half years.

Q. 7. Where is the Chicago Coin Machine Company located?

A. 1725 Diversey Parkway, Chicago.

Q. 8. The Chicago Coin Machine Company is one of the defendants in this cause, is that right, to your knowledge?

329 A. That is right.

Q. 9. As chief engineer with the Chicago Coin Machine Company, what in effect are your duties?

A. My duties are to design and develop coin operated equipment, such as pin games, bowling alleys and the like.

Q. 10. And in the performance of this occupation as chief engineer, do you make it your business to ascertain the various game apparatuses in the pin game industry?

A. That is very necessary.

Q. 11. Is that helpful in carrying on your profession as a chief engineer?

A. Very helpful, yes.

Q. 12. At the present time, are you fairly familiar with the various games that have been manufactured by various manufacturers in the pin game industry, say, over the period going back to 1935?

A. Yes, I am.

Q. 13. Will you give a brief statement of the various types of games which you are familiar with and which have been manufactured and used during that period of time?

A. Since 1935?

Q. 14. Since 1935, yes.

A. Well, the games that were being manufactured by ourselves and competitors were the bagatelle type game using holes; in the hole is located a switch, whereupon 330 if a ball fell into the hole, a light would be lit.

We also used on games at this time what is called a roll-over switch. This switch upon being rolled over by a ball set up a light of some sort or another. Together with these various holes and roll-over switches, we had spring members used as obstacles on the board to deflect and give the ball action.

After that, I believe it was in the summer of 1936, we were very much excited about a new game being introduced by a new manufacturer. We found out that this was the Pacent Manufacturing Company of Utica. They ran a series of blind ads, teaser ads we call them in the profession, showing no pictures of the game but indicating that it would be a surprise to the industry. We were very much interested and through some form or another we got bits of information and this was substantiated by an ad that followed through in the fall of 1936, showing what has been presented in this court as a "Bolo" machine having the 10 bowling pins located on the playing field. Upon the acceptance of this machine on the market, the trade seemed to be well pleased with it. Immediately thereafter, I began work on a game for the Chicago Coin Machine Company called "Rugby." In place of the bowling pins we put on a small aluminum casting, a manikin designating a baseball player, or rather a football player. In this game, in the manufacture of this game we were rather successful. 331

And directly thereafter, or at the same time, there appeared on the market, the regulation type bumper spring game. The bumper springs naturally have been an item that have been used on games for the past five or six years in some form or another and naturally, there were new tendencies involved.

Mr. Ooms: I object to that answer. It is merely a conclusion of the witness.

The Court: Strike it out.

Mr. Ooms: (Continuing.) As not stating any facts at all.

Mr. Threedy: That is, just the last part of the witness' statement, is that right?

Mr. Ooms: Everything after he said the bumper game appeared.

The Witness: After that time we have been manufacturing games incorporating bumper springs, roll-over switches, and in some cases holes.

Mr. Threedy: Q. 15. Now, to the best of your knowledge, Mr. Koci, when did you first become acquainted with the introduction in the pin game industry of a game apparatus in which there were no holes employed in the table or board down which the balls gravitate?

A. I believe that it was about in 1935, a competitor made a game having all roll-over switches.

Q. 16. And do you know who that was?

332 A. I believe it was Rockola.

Q. 17. Do you know the name of the game?

A. Not offhand.

Q. 18. To the best of your knowledge, when did you first obtain knowledge of the introduction in the pin game industry of a game apparatus wherein they used a ball actuated switch, wherein the ball—by the action of the ball the switch was closed and the ball rebounded back upon the board?

A. That was in the late summer of 1936. I make reference to the "Bolo" machine.

Q. 19. The "Bolo" machine, you say?

A. That is right.

Q. 20. And who manufactured the "Bolo" machine?

A. The Pacent Manufacturing Company of Utica, New York.

Q. 21. Do you know to what extent the "Bolo" machine was accepted by the industry?

A. It was accepted very well, in that I was asked by my employers to see whether or not I could get out a game which would be accepted as well.

Mr. Ooms: I object to that answer as stating merely the conclusion of the witness and no facts of any probative value here.

The Court: Sustained.

Mr. Ooms: The testimony shows how they were made, in the depositions.

333 Mr. Threedy: Q. 22. Then, we understand, Mr. Koci, that it was in the summer of 1936 you first obtained knowledge of the "Bolo" game, is that correct?

A. That is correct.

Q. 23. And how do you fix the date?

A. It was directly after a season where we were manufacturing a skee ball type game.

Q. 24. Are you acquainted with the various associations in the pin game industry?

A. Yes, I am.

Q. 25. Did you ever hear of an association operating under the name of the Coin Machine Suppliers Association?

A. No, sir, I haven't.

Mr. Threedy: You may cross-examine, Mr. Ooms.

Cross-Examination by Mr. Ooms.

XQ. 26. Mr. Koci, when you referred to the introduction of the bumper type game in the fall of 1936, you were speaking of a game that employed a bumper switch such as is mounted upon Plaintiff's Exhibit No. 11? (Mr Ooms hands object to the witness.)

A. Not in the fall. At the close of the year.

XQ. 27. At the close of the year?

A. That is the bumper switch.

334 XQ. 28. Who first produced that switch, do you know?

A. I believe it was the Bally Manufacturing Company.

XQ. 29. And that was the first time you saw a game of that type on the market?

A. With that particular switch.

XQ. 30. Now, subsequently the Chicago Coin Machine Company made a device with a switch of that kind, did it not?

A. Not of that type.

XQ. 31. What was the difference?

A. The difference was that it did not have the member 19 extending downward and it was merely an angular spring and we inserted four nails into the board. This merely turned on a light or turned off a light; in other words, once this bumper spring was touched by a ball, it became dead.

XQ. 32. Not speaking of your electrical circuits below

the board, you made switches such as Plaintiff's Exhibit No. 6, did you not?

A. Not at that time.

XQ. 33. When?

A. Later.

XQ. 34. In 1937?

A. Not this type.

XQ. 35. Didn't you ever make that?

A. Oh, no.

XQ. 36. You don't—

335 A. I design all this material.

XQ. 37. And you never designed that switch?

A. No, not to my knowledge.

XQ. 38. I don't know where it came from. We have stipulated that you made it.

A. No.

XQ. 39. What about this switch, Plaintiff's Exhibit No. 5?

A. That is the one.

XQ. 40. You made that?

A. We made that.

XQ. 41. And when did you begin making those?

A. I believe the first game we started using that on was a game called "Home Run," and that was in the early part of 1937.

XQ. 42. It was after the "Bally" game had appeared on the market?

A. That is right.

XQ. 43. Was it quite successful?

A. Fairly so.

Mr. Ooms: That is all.

Redirect Examination by Mr. Threedy.

RDQ. 44. Mr. Koci, you on direct examination referred to the first type of game as being introduced to your
336 knowledge in the industry in the summer of 1936, I think you said?

A. That is right.

RDQ. 45. Wherein they used a ball contact switch with the ball rebounding back upon the board, is that correct?

A. That is correct.

RDQ. 46. What game apparatus did you refer to when you made that statement?

A. The "Bolo" game.

RDQ. 47. And that is the "Bolo" game that is in the court room here as Defendants' Exhibit No. 2, is that right?

A. That is correct.

RDQ. 48. That was prior to your knowledge, of the contact bumper contact switch such as Plaintiff's Exhibit No. 11 (indicating object), is that right?

A. Definitely prior.

Mr. Threedy: I believe that completes the defendants' proofs, and the defendants rest, if the Court please.

Whereupon the Defendants Rested Their Case.

And Thereupon the plaintiff Ace Patents Corporation, to further maintain the issues on its behalf, offered and introduced the following evidence, in rebuttal, to-wit:

Mr. Ooms: If the Court please, I have Mr. Pippel here.

He has some professional engagements. I would like 337 to put him on for about three minutes and I think we will be through with him.

The Court: Very well, if you can get through with him.

Mr. Ooms: We can get through with him in three minutes, I am positive. Now, I only want to ask him one thing.

PAUL O. PIPPEL, called as a witness on behalf of the plaintiff Ace Patents Corporation, in rebuttal, being first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Ooms.

Q. 1. You are Mr. Paul O. Pippel, patent attorney here in Chicago, are you not?

A. Yes, sir.

Q. 2. That prosecuted the Neufeld and Mabs Application?

A. Yes, sir.

Q. 3. Calling your attention, Mr. Pippel, to the time of October 12, 1935, when you received an Action on the Neufeld and Mabs Application, will you kindly tell us what transpired after you received that Action with respect to the applicant Mabs?

A. I have here my original file of this Application. The file has been in my custody constantly until a few days ago. It was kept in the regular order of business and most of the items where longhand is involved are in my own handwriting.

338 On October 12, 1935, the Patent Office mailed to me an official communication finally requiring division between claims directed to two alleged inventions in this Application, one set of claims relating to the pin lever switch and the other set of claims relating to a detector mechanism for designating score values. That was on October 12, 1935. Within a few days, I can't say just when, but within a few days to the best of my recollection, I made an attempt to communicate with Mr. Mabs by telephone.

I have here a note made by one of my assistants on one of my desk pads to the effect that I should call, it says here, "Mr. Pippel, call Lincoln 7222, ask for Mr. Mabs." That was in response to an attempt I had previously made to reach him by the telephone. There is no date on this memorandum.

There is another telephone number written here in my own handwriting, "Monroe 0328."

To the best of my recollection, I tried to reach Mr. Mabs at Lincoln 7222 and someone there told me to try this other telephone number, which I did, and as a result of that conversation I explained to Mr. Mabs that we must elect one of these two inventions for continued prosecution in this Patent Application. Mr. Mabs stated to me in this telephone conversation I had with him that the pin

lever switch is passe, that I should cancel the claims 339 directed to that and that I should continue to prosecute the Patent Application with respect to the claims directed to the detector mechanism.

This memorandum was here in my file and in my own handwriting and was made at the time in the regular course of business, and some time after October 12, 1935, when the Patent Office dated its official communication to me requiring division, and the date of November 6, 1935, a few weeks thereafter, when I actually responded to the Patent Office Action and cancelled out the claims directed to the pin lever.

Mr. Ooms: That is all.

Cross-Examination by Mr. Thredy.

XQ. 4. Mr. Pippel, the division requirement was complied with, was it not?

A. Yes, sir.

XQ. 5. And the Application as divided was allowed, is that correct?

A. Yes, sir.

XQ. 6. And whom did you notify concerning the allowance of the Application?

A. I had Mr. Neufeld or Mr. Mabs, either one or both at various times called on me to inquire respecting the progress of the Application—I did communicate with 340 the Bally or Lion Manufacturing Company, Mr. Moloney its president, and there is a letter here to the effect that I am telling him, a copy of a letter rather, dated October 13, 1936, stating that the above Application has been allowed, "What shall I do with it?"

XQ. 7. Is that the letter?

A. Yes, I have a copy of that letter.

XQ. 8. Would you mind reading it?

A. The letter is dated October 13, 1936.

"Mr. R. T. Moloney,
2640 Belmont Avenue,
Chicago.

Dear Ray: Re: Application S. N. 15,521.

"The above pin ball game Patent Application filed April 10, 1935, in the names of Neufeld and Mabs has been finally allowed with eleven claims. The case was never assigned. What shall we do about it?

Yours truly."

"Copy to: Mr. J. A. Russell."

XQ. 9. Did you receive a response to that letter?

A. No, I didn't, but I do distinctly recall talking to Mr. Moloney over the telephone and he said he was no longer interested, it was dead, and that the boys Mabs and Neufeld could have it back as far as they were concerned, and I am confident in my recollection that I 341 told either one or both that the Application had been allowed and that if I could get the \$30.00 out of them, they might have the patent. That is the Government filing fee necessary to take out the patent.

Mr. Threedy: That is all, Mr. Pippel.

The Court: Is that all?

Mr. Threedy: Yes.

Mr. Ooms: That is all, your Honor. Thank you.

(Witness excused.)

Mr. Ooms: That isn't all of my rebuttal. That is just this one witness. I have another witness this afternoon.

The Court: We will recess until 2 o'clock.

Whereupon a recess was taken until 2 o'clock P. M. of the same day, Wednesday, May 15, 1940.

342 * * (Captions—16,209—16,210—16,212) * *

Before Hon. John P. Barnes, Judge.

Wednesday, May 15, 1940,
2 o'clock P. M.

Trial resumed pursuant to recess.

Present: Mr. Russell,
Mr. Nelson,
Mr. Ooms;
Mr. Thredy.

The Court: You may proceed.

Mr. Ooms: If your Honor please, we have one substantial witness in rebuttal to testimony that is in the depositions. I understand your Honor has not read them and there may be some things in connection with his testimony that we will have to explain the pertinency of.

343 WALTER VON STOESER, called as a witness on behalf of the plaintiff Ace Patents Corporation, in rebuttal, being first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Russell.

Q. 1. State your name, please.

A. Walter von Stoesser.

Q. 2. Where do you live?

A. Kenmore, New York.

Q. 3. And by whom are you employed?

A. The Rudolph Wurlitzer Company.

Q. 4. How long have you been employed by them?

A. Since last October.

Q. 5. What, in a general way, are the natures of your duties?

A. My work in the plant at the present time is ex-

perimental developing and engineer over the entire project.

Q. 6. State more in a general way.

A. That work includes developing ideas, either mine or ideas that the Company might buy or purchase to a point where they have a tangible value or have merits sufficient to warrant their manufacture.

Q. 7. Prior to that time, by whom were you employed?

A. I was employed by Savage Arms, Utica, New York.

344 Q. 8. And how long were you employed by them?

A. Three years.

Q. 9. State in a general way the nature of your duties there.

A. My work there was of a similar nature, that is, development work, engineering work, ideas, new things that were going through production.

Q. 10. Prior to that time by whom were you employed?

A. The Pacent Novelty Manufacturing Company.

Q. 11. Covering what period of time?

A. I went to the Pacent Novelty Manufacturing Company the latter part of October, 1936, and was called up there—

Q. 12. Just the period of time.

A. I beg your pardon. From the latter part of October, 1936, until about March, 1937, at which time they went into bankruptcy.

Q. 13. Now, state in a general way the nature of your experience prior to your employment by the Pacent Novelty Manufacturing Company.

A. Prior to that time, I was employed here in Chicago as development engineer for the Shyvers Manufacturing Company. Prior to that time, I was with the Curtiss Airplane, in Seattle, Washington. And during that period of time I developed a number of different games. I used to do the developing and bring them out and sell them to various people. Rockola was a purchaser.

345 Q. 14. That is coin operated amusement games?

A. That is right.

Q. 15. And state in a general way your duties while with the Pacent Novelty Manufacturing Company.

A. I was employed by the Pacent Novelty Manufacturing Company as chief engineer and my work was to supervise all experimental work, that is, new ideas and new developments within the plant, new games, whatever,

they were interested in manufacturing. In addition to that, I had charge to see that the production lines operated successfully, that the machines went through in a successful manner.

Q. 16. Do you know Mr. John Grimm?

A. Yes.

Q. 17. And Mr. Martin Grimm and Mr. Ellsworth Fitch?

A. Yes, personally acquainted with them.

Q. 18. Were they associated with the Pacent Novelty Manufacturing Company during that time?

A. Yes.

Q. 19. In what capacity was Mr. Fitch employed, if you know?

A. At the time I went there, he was employed in developing circuits, electrical circuits on the "Bolo" game particularly.

Q. 20. He was working under you?

A. Well, after I came there, yes, he worked under me.

Q. 21. While you were there, did you at any time
346 see him work on a coil spring?

A. No, sir.

Q. 22. State in a general way the nature of Mr. Fitch's duties.

A. Mr. Fitch's duties were to work out electrical circuits, which in a way determined our phantom circuits which compose certain results in a game, such as the registration of points and the general operation of the game and furnishing the idea, lighting effects and such as that.

Q. 23. When was the first time you saw a coil spring on a playing surface of an amusement game?

A. It was shortly after the first of January, 1937, during the month of January.

Q. 24. And where?

A. In the Martin Hotel in Utica, New York.

Q. 25. Who was present at that time?

A. Mr. Grimm—that is, the two Grimm boys, Johnny Grimm and Martin Grimm and Mr. Ruben of the Ruben Sales Company, and myself.

Q. 26. Who is Mr. Ruben, if you know?

A. Mr. Ruben is an operator of games in Utica, that is, acting as one of the distributors of the Pacent Novelty Manufacturing Company.

Q. 27. In other words, directly associated with Pacent?

A. Yes.

347 Q. 28. In the sales end of it?

A. That is right.

Q. 29. And the Grimm boys were officers of the company, were they?

A. Martin Grimm was president of the company and Johnny Grimm I don't believe had any title in the company, although he worked there.

Q. 30. You say that is the first time you saw a coil spring on a playing surface?

A. Yes, sir.

Q. 31. State what you saw at that time and what was said by each, to the best of your recollection.

Mr. Threedy: May we have the time fixed, if your Honor please?

Mr. Russell: He said the first—

The Court: In January, the first part of 1937.

Mr. Russell: The first part of January, 1937.

The Court: In some hotel.

Mr. Russell: In the Martin Hotel, in Utica, New York.

The Witness: In Utica, New York.

What was the question?

Mr. Russell: Q. 31. (Continuing.) What was done and said at that time, to the best of your recollection?

A. Mr. Ruben came into the plant and told us that a new game had come out called "Bumper" and asked
348 us to come down to the Martin Hotel where it was on display in the lobby, and we went down and looked at the game and apparently it was rather humorous, and Mr. Grimm mentioned the fact, "Why didn't we think of putting springs upon a game like ours?"

Q. 32. Whose game was that?

A. "Bumper" game.

Q. 33. Whose game was it?

A. Bally's game.

The Court: I can't hear you.

Mr. Ooms: What did you say?

Mr. Russell: The Bally Bumper game.

Q. 34. Now, after you saw the Bally Bumper game there in the Martin Hotel, what was done, if anything, with reference to the Bally Bumper game?

A. Mr. Ruben brought a game, brought a Bally Bumper game into the plant and it was decided upon by Mr. Ruben and the Grimm boys that we should make a game incorporating the springs in a play board. We immediately set about to design a game, doing just such a thing. We removed the springs from the game.

Q. 35. What game?

A. The Bally Bumper game, and applied them and put them on our particular game, which was called "Stop 'Em." Mr. Fitch had an active part in that. He took care of the wiring; in fact, he was the one that re-
349 moved the springs and put them on the board itself.

Q. 36. The first model was made up by whom?

A. Bally Manufacturing Company.

Q. 37. Did you look at the "Stop 'Em" game here in the court room?

A. Yes.

Q. 38. Is that the "Stop 'Em" game made by the Pacent Novelty Manufacturing Company?

A. Yes; that is the game.

Q. 39. Would you say that the game "Stop 'Em" was a copy of the "Bally Bumper" game?

A. It was, with the exception I decided the springs which Bally had, the bumper switch was made of virole wire and they didn't lend themselves to electrical contacts and they had a tendency to pit under a heavy arcing. I sent one of the springs to the Accurate Spring Company and asked them to make a spring made of copper bronze wire.

Mr. Threedy: I object to the question as calling for a conclusion and move that the answer be stricken.

The Court: What was the question?

(Q. 39 read by the reporter.)

Mr. Russell: It was not responsive, but I can follow it by another question.

The Court: Oh, let it stand.

Mr. Russell: Q. 40. Now, prior to the time you
350 saw this Bally game in the Martin Hotel in January of 1937, did any officer, employee or anyone connected with the Pacent Novelty Manufacturing Company mention or suggest in any form the making of a coil spring and switch on the playing surface of a game?

A. No, sir.

Q. 41. Do you know Sol Silverstein?

A. Yes.

Q. 42. How long have you known Sol Silverstein?

A. I met Mr. Silverstein about, I would say, Christmas of 1936 in the Pacent Manufacturing plant.

Q. 43. With whom was he associated at that time, if you know?

A. I couldn't say.

Q. 44. Do you know who he is associated with now?

A. Well, he is supposed to be—or the last I knew, he was associated with the Chicago Coin, as a salesman.

Q. 45. The Chicago Coin Machine Company?

A. As a salesman, yes.

Q. 46. Did you have any conversation with him with reference to the bumper springs?

A. Yes.

Q. 47. When?

A. It was in March, a year ago last March.

Q. 48. Where?

A. In the Martin Hotel in Utica, New York.

351 Q. 49. Anybody else present?

A. No.

Q. 50. State the conversation you had with him at that time, to the best of your recollection.

A. He called me up on the telephone and wanted me to come down and I went down and he advised me that Bally had obtained a patent on the bumper spring and that different companies in Chicago here had been served with notice that they would have to either license themselves or quit using the bumper spring or switch, and he felt, or he stated rather, that it could be—that it was possible that Mr. Fitch could have—that Mr. Fitch and I, rather, and the two Grimm boys, could have Mr. Fitch file on an application for a patent, on the idea, and he wanted an affidavit from me as well as from the Grimm boys, and he stated also, as a matter of fact, if he were able to obtain these affidavits from us and Mr. Fitch would file an application on this particular spring switch, that he would take this application to the Bally people, and that he could probably realize some money and if he did he would split it with us. I told him I wasn't interested, because I did not think Mr. Fitch had invented the spring switch.

Q. 51. Anything else said?

A. No, nothing more, further, as far as he and I—after that, he didn't bother me any more about it.

Q. 52. Did you ever meet Mr. Threedy, the oppos-
352 ing counsel here?

A. Yes, I met him.

Q. 53. When did you first meet Mr. Threedy?

A. I met Mr. Threedy in Ely's Hotel in Utica, New York.

Q. 54. In the hotel in Utica, New York, and who was present at that time?

A. As I recall, Mr. Silverstein was present and I was asked to come over and sit at their table.

Mr. Ooms: If your Honor please, could we have the exhibits that accompanied the depositions that were in the box that was opened here yesterday?

The Court: Yes.

Mr. Russell: Q. 55. Do I understand that you had full charge of engineering and production?

A. Of the Pacent.

Q. 56. Of the Pacent Manufacturing Company?

A. That is right.

Q. 57. And in that capacity did you have an opportunity to observe what Mr. Fitch was doing each day?

A. Yes, I spent a number of hours each day in the experimental room.

Q. 58. About how many hours per day would you be associated with Mr. Fitch?

A. Oh, I would say 50 per cent of the time, as to the production time, I only circulated around, I didn't spend any great amount of time on that end.

Q. 59. And what did Mr. John Grimm and Martin Grimm do, if you know?

A. Well, Mr. Martin Grimm did not take such an active part. He was running a restaurant. He did not spend too much time there. Johnny Grimm, he worked at the ordering of materials more or less.

Q. 60. They had nothing to do with production at that time?

A. At that time, no.

Q. 61. In any manner, shape or form?

A. At that time, no.

Q. 62. While you were at the plant of the Pacent Manufacturing Company—

I am showing you Defendants' Exhibits 10 and 11 and ask you whether you ever saw them while you were in the employ of Pacent?

A. No; with the exception of the steel pin.

Q. 63. You did see the steel pin? Did you ever see that (indicating exhibit)?

A. No, sir.

Q. 64. Did you ever see it in any form?

A. No, sir.

Q. 65. In any game, while you were at the Pacent Manufacturing Company?

A. No, sir.

354 Q. 66. Did you ever see any drawings of any kind of a coil spring similar to this?

A. No, sir.

Q. 67. Did you ever see a drawing of any spring or coil stretched above the playing field?

A. No, sir.

Mr. Russell: That is all.

Cross-Examination by Mr. Threedy.

XQ. 68. Mr. von Stoesser, I want to refresh my own recollection: you testified that you met me at Utica, New York?

A. Yes, to the best of my knowledge, and I am certain that I met you in Utica at the time you were up there.

XQ. 69. At what time of the day was this?

A. As I recall, it was during the day time, during the noon hour or about then.

XQ. 70. Would you say it was before noon or after-noon?

A. Well, I don't know—it was during the noon period some time.

XQ. 71. Do you know what day?

A. No, I don't to tell you frankly.

XQ. 72. Do you know what month?

A. No, I couldn't say definitely.

XQ. 73. Do you know who was with me?

355 A. Well, Mr. Silverstein introduced me to you.

XQ. 74. Were we sitting down at a table?

A. You were seated at a table, yes. As a matter of fact, you gave me your card.

XQ. 75. I did give you my card?

A. Yes, you gave me your card.

XQ. 76. Have you got the card with you?

A. No, sir, I haven't.

XQ. 77. Did you have any conversation with me that you recall?

A. We just talked about general things.

XQ. 78. We didn't talk about this case at all?

A. No. We didn't talk about the case.

XQ. 79. Now, one more question: you stated that you

were first employed by the Pacent Novelty Manufacturing Company the latter part of October, 1936, is that correct?

A. Yes, right about October, right around the November month. I wouldn't say right to the definite date.

XQ. 80. But it was at least the latter part of October, 1936—

A. Yes, that is right.

XQ. 81. Or the first of November?

A. Yes, that is right.

Mr. Threedy: That is all, if your Honor please.

Mr. Russell: That is all.

(Witness excused.)

356 JERRY C. KOCI, recalled as a witness herein on behalf of the plaintiff Ace Patents Corporation, in rebuttal, having been previously duly sworn, was examined and testified further as follows:

Direct Examination by Mr. Ooms.

Q. 49. You have been sworn?

A. Yes, sir.

Q. 50. You are the same Mr. Koci who testified this morning?

A. That is right.

Q. 51. You are experimental engineer for Chicago Coin Machine Manufacturing Company, is it?

A. Right.

Q. 52. Do you know Sol Silverstein?

A. Yes, I do.

Q. 53. Who is he?

A. He is our traveling salesman, our man on the road that contacts various distributors of ours.

Q. 54. Are his headquarters at the plant of the Chicago Coin Machine Manufacturing Company?

A. He has no headquarters. Like I said, he is a traveling man.

Q. 55. Does he have an office in your Chicago office?

A. No, sir.

357 Q. 56. When he is in town?

A. He does not, no.

Q. 57. Have you seen him this week?

A. Yes, I have.

Q. 58. He is in Chicago this week?

A. Yes, that is right.

Q. 59. Where did you see him?

A. I saw him at our plant.

Q. 60. Do you know how long he has been with the Chicago Coin Machine Company?

A. Not definitely, about a year, a year and a half.

Mr. Ooms: That is all.

Mr. Threedy: No cross-examination.

(Witness excused.)

Mr. Ooms: I now offer as Plaintiff's Exhibit No. 30 a certified copy of the File Wrapper of the Application of Ellsworth M. Fitch filed October 7, 1939.

(Said File Wrapper and Contents, in the matter of the Pending Application of Ellsworth M. Fitch, filed October 7, 1939, Serial Number 298,347, for Improvement in Game Apparatus, so offered and received in evidence by the Court, was marked PLAINTIFF'S EXHIBIT NO. 30.)

Mr. Ooms: If the Court please, I have sought to 358 get from Mr. Threedy a stipulation as to the ownership of this Application which he has filed, and I am unable to do it, and therefore I must ask the indulgence of the Court while I examine a brother lawyer, which I dislike to do very much.

Mr. Threedy: I am perfectly willing to stipulate as to the ownership of this Application, if I know. And I would be pleased to do this: I will make inquiry as to who is the owner. I am frank, very frank, I don't know. There is no assignment of record; and I will advise counsel and counsel can in turn advise the Court and make it of record.

Mr. Ooms: Well, can you stipulate as to who was the owner at the time it was filed?

Mr. Threedy: I don't know. As far as I know, it was filed by Ellsworth M. Fitch. Now, whether he assigned it—there is in the depositions a contract. Mr. Russell is familiar with the contract.

Mr. Russell: There is a contract in the deposition which says Silverstein owns it.

Mr. Threedy: Well, if Mr. Silverstein owns it on an option, I am willing to stipulate any fact that exists.

Mr. Russell: That is in the record now.

Mr. Threedy: I can't stipulate as to whether he owns it, because I don't know, and if he does own it I am perfectly willing to advise counsel and then he can stipulate it and make it of record.

359 Mr. Ooms: You certainly know who paid you for preparing it.

Mr. Threedy: Yes. You are asking me about the ownership. I can't say.

Mr. Ooms: Who paid you for preparing it?

Mr. Threedy: I don't believe I am a witness on the stand.

Mr. Ooms: Then, I will have to call you, Mr. Threedy. I will ask the Court to call the gentleman.

Mr. Threedy: I am perfectly willing to take the stand, but I can't testify to anything that I am not telling the Court now.

The Court: That is one thing you are entitled to in this country, the Courts have said, and that is evidence.

Mr. Threedy: Do you want me as a witness, Mr. Ooms?

Mr. Ooms: Yes, Mr. Threedy.

CLARENCE E. THREEDY, called as a witness herein by the plaintiff, Ace Patents Corporation, being first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Ooms.

Q. 1. Will you please state your name?

A. Clarence E. Threedy.

Q. 2. You are patent counsel?

360 A. I am patent counsel for the defendants.

Q. 3. And you are attorney for all three defendants in this case?

A. That is right.

Q. 4. I have in my hand the certified copy of the Pending Application of Ellsworth M. Fitch, Plaintiff's Exhibit No. 30, which appears to have been drafted by you. That application was drafted by you?

A. Originally it was prepared in my office, that is right. I did not personally draft the Application.

Q. 5. Did you sign the Application?

A. My name is signed to the Application as the attorney of record in the United States Patent Office.

Q. 6. And you supervised its application—supervised the preparation?

A. The preparation was done in my office and in effect under my supervision, that is correct.

Q. 7. You ordered the file in your name?

A. I directed the filing of it, that is right.

Q. 8. Who paid you for the preparation and filing of this Application?

A. I believe that was paid by Mr. Silverstein.

Q. 9. That is, Mr. Sol Silverstein?

A. Mr. Sol Silverstein.

Q. 9-A. Referred to?

361 A. That is right.

Q. 10. You know Mr. Sol Silverstein?

A. Definitely, yes.

Q. 11. He is an employee of the Chicago Coin Machine Manufacturing Company?

A. I understand he is a salesman, a road salesman for them.

Mr. Ooms: That is all.

Cross-Examination.

Mr. Threedy: Now, I would like to state to the Court in view of the fact that I have no counsel to interrogate me under cross-examination I would like to state this in narrative form:

In view of the depositions that were taken in Utica, New York, of Ellsworth Fitch, the applicant named in the Application, it occurred to me that there might be some rights of ownership claimed by Mr. Fitch in this invention, the issue of which is before the Court. Therefore, in order to protect any rights that Mr. Fitch may have, the Application which Mr. Ooms has been referring to was duly filed in the United States Patent Office and it is now being prosecuted by Mr. Livingston, who was the employee in my office.

Mr. Ooms: I would like to ask a few questions on redirect, Mr. Threedy.

362 Mr. Threedy: All right.

Redirect Examination by Mr. Ooms.

RDQ. 12. At the time you prepared this Application you were aware, were you not, that the "Bally" bumper had been on the market for more than two years prior to the time that Oath was executed?

A. I was told that, but there was no definite proof to that effect.

RDQ. 13. You had attended the taking of the depositions in July, 1939?

A. I took the depositions myself of Mr. Fitch and his other witnesses, corroborating witnesses.

RDQ. 14. You knew at that time that the "Bolo" machine had been on the market?

A. In 1939?

Mr. Ooms: Yes.

A. I knew that there was a "Bolo" machine on the market, and naturally that was the substance of the depositions.

RDQ. 15. And you had taken Mr. Fitch's sworn deposition that the "Bolo" machine had been on the market since July, 1936?

A. That is right.

363 RDQ. 15a. At the time this Application, Plaintiff's Exhibit No. 30, was prepared?

A. That was prior to that time. That is right.

Mr. Ooms: That is all.

(Witness excused.)

Mr. Ooms: The plaintiff rests, your Honor.

Whereupon the plaintiff, Ace Patents Corporation, rested its case.

Mr. Ooms: If it seems at all practical, we might run through these depositions, your Honor, and argue the case, but if you prefer to take briefs on it I am perfectly agreeable to do whatever the Court prefers.

The Court: I did not do any reading last night. You may read the depositions to me.

Mr. Ooms: All right.

Mr. Threedy: Whatever is agreeable, it is all right with me.

Mr. Ooms: I can read them and omit all objections and colloquy, whatever is agreeable to counsel.

Mr. Russell: I will agree with counsel to waive all objections both ways in the record, because there is no jury here, and let the Court have it by taking a short cut.

I have plenty of objections in there, too.

364 Mr. Ooms: I think we could get through possibly in an hour.

The Court: Go ahead.

Mr. Russell: I took the depositions.

The Court: You might show that deposition to the court reporter.

Mr. Ooms: What I intend to do, your Honor, is mark with pencil in brackets all the parts that I omit.

Mr. Threedy: Perhaps if we had the exhibits where your Honor could reach them, it would be helpful.

Mr. Ooms: Here are all the exhibits that accompanied the depositions. I think we will get through reading these depositions in a hurry.

This is a deposition taken July 26, 1939, at Utica, New York, pursuant to notice. The notice of taking depositions was offered into evidence.

365 (And thereupon the Depositions of John Grimm, Ellsworth M. Fitch, Martin P. Grimm, Thomas L. Wilder and Sol Maurice Silverstein, were read to the Court, on behalf of Defendants; said depositions having been taken before Antonio Faga, a Notary Public in and for the County of Oneida, in the State of New York, on the 26th day of July, A. D. 1939, in the First National Bank Building, Utica, New York; said witnesses having been produced on said day and place on behalf of the defendant in the cause entitled Ace Patents Corporation, a corporation, Plaintiff, vs. Chicago Coin Machine Co., a corporation, Defendant, Civil No. 16,212, in the District Court of the United States, for the Northern District of Illinois, Eastern Division at Chicago.)

366 Mr. Ooms: I think at this time I would like to offer the one exhibit, Plaintiff's Exhibit 1.

And do you want to offer all of these in the depositions?

Mr. Threedy: Yes.

The Court: They may be received.

(Whereupon said PLAINTIFF'S DEPOSITION EXHIBIT NO. 1, so offered and received in evidence, was so marked.)

(Said Defendants' Deposition Exhibits, No. 1 to No. 24, inclusive, so offered and received in evidence, were marked as DEFENDANTS' EXHIBITS NOS. 1 TO 24, inclusive.)

The Court: Is there any thing else?

Mr. Ooms: That is all.

The Court: Both sides rest?

Mr. Threedy: That is correct.

The Court: How much time will you gentlemen require to argue this matter?

Mr. Ooms: I would like to make it just as short as we can, at everybody's convenience. In ten days?

Mr. Threedy: What are you referring to?

367 Mr. Ooms: For argument, or for briefs?

The Court: For argument.

Mr. Ooms: Oh, how much time?

The Court: Yes.

Mr. Ooms: I beg your pardon. Three-quarters of an hour.

The Court: How much time do you require?

Mr. Threedy: Not more than an hour, if your Honor please.

The Court: Very well. Tomorrow morning.

Mr. Threedy: At 10:00 o'clock?

The Court: At 10:00 o'clock.

(Whereupon an adjournment was taken until the following day, Thursday, May 16, A. D. 1940, at the hour of 10:00 o'clock A. M.)

368 IN THE DISTRICT COURT OF THE UNITED STATES.

* * (Caption—16,209-16,210-16,212) * *

Before

Hon. John P. Barnes, Judge.

Thursday, May 16, 1940,
10 o'clock A. M.

Present:

Messrs. Russell, Murphy & Pearson, by John A. Russell, Esq., and Martin M. Nelson, Esq., and

Messrs. Dawson, Ooms & Booth, by Casper W. Ooms, Esq., of Counsel, appeared on behalf of Ace Patents Corporation, Plaintiff;

369 Clarence E. Threedy, Esq., appeared on behalf of The Exhibit Supply Co., a corporation; Genco, Inc., a corporation; and Chicago Coin Machine Co., a corporation, Defendants.

Mr. Threedy: If the Court please, yesterday during the hearing, the question came up concerning the patent statutes. We referred the Court to the case of Oswald vs. Bloomfield, where we thought that was the case that the Court had in mind on the question of the patent statutes. This morning I made inquiry of the Clerk of the United States Circuit Court of Appeals and I find that the appeal is pending and will be argued May 24th. The record is

downstairs, too, on the second floor of this building here, and I did not have the opportunity to get that record for the Court.

Now, I would also like to make this statement, if your Honor please: yesterday, Mr. Ooms requested a stipulation of me concerning the ownership of the Fitch Application to which he referred; at that time, I was not prepared to stipulate because I was not certain who owned the Application. Since then I have refreshed my memory by inspecting the file history of that case and I am prepared to stipulate, now, with Mr. Ooms, if he desires, that the Fitch Application is owned by Sol Silverstein, having been assigned to him in accordance with the contract with Ellsworth Fitch, but that Application is not owned by one of the defendants before this Court. I would be pleased to stipulate, if Mr. Ooms desires that that be done.

Mr. Ooms: Let that be shown of record, please.

The Court: Very well.

Argument to the Court by Mr. Ooms.

Mr. Ooms: May it please the Court:

The Court: Mr. Ooms.

Mr. Ooms: We have here a very simple patent case. Does your Honor have a copy of the patent in suit?

The Court: I think I have. Just a moment. Patent No. 2,109,678.

Mr. Ooms: Yes, your Honor. It is an extremely simple patent, an extremely simple device and one claim, Claim 4 at issue.

I think it is agreed that the structure of the patent is well exemplified by Plaintiff's Exhibit No. 11, which represents a portion of a pin table with a vertical standard rising from it, from that vertical standard a rather wide coil spring pendantly supported from the top of the standard, so that one end of the spring may make contact with a companion member embedded in it, in the board, and that is about all the claim calls for, and that is all that is discussed in the Patent Application.

It is not contended that the inventor invented the idea of making a switch which operated by the flexing of the spring. That was old. But, it was the first time in the pin table industry that somebody had made a target therein from a spring which was so simple, it could be installed

immediately on the top of the board, and could be detected instantly when the thing was out of adjustment; all the contacting parts were in complete view. There were no complicated portions to be built under the board, no delicate swivels or anything to accumulate dirt and render the thing inoperative. Nothing of the complications of any of the prior art switches. It had a great deal of resiliency because of the way the spring was supported. It had practically no way in which it could get out of adjustment, except as it might be rotated one way or another around the central pillar, and that was immediately adjustable by the means of readjustment.

The thing had player appeal as shown by the commercial success which followed. Our own experience, the 372 plaintiff's licensees' experience is typical. They sold 80,000 machines in about three years. In the first six months in the six months surrounding the invention of the device, their business rose from the production of around 100 to 150 a day to a place where it almost reached 700.

The value of the products they made in three years under the license exceeded \$6,000,000.00, and that represented but a third of the industry. When the thing struck, it struck with full force. Every one of the competitors copied it.

The advertising is interesting in that the devices as manufactured by the competitors not only copied the device, they called it a bumper spring, and in addition, the most startling feature of all, practically all of their advertisements showed this simple device of the patent, reprinted it in a separate portion of the advertisement. That was the advertisement in Plaintiff's Exhibit No. 23 of Chicago Coin corporation.

We also had featured it showing an enlarged photograph of the device with a man sitting on it, a so-called human interest advertising.

Similarly, other competitors not involved in this suit, such as J. H. Keeney published a picture of this Spiral

Spring and also another ad of the Chicago Coin corporation showing their "Home Run" with the same 373 device. This was the thing that made these machines salable. It was the thing that every competitor copied. It went into very wide use. It is shown in almost every one of these advertisements, the simple thing of this invention.

Of course, commercial success alone does not make a patent, but we have the presumption of validity from its

issuance, we have this simulation, this tribute paid to it by the entire industry; we have the fact that it turned the tide for one of the licensees and made what was a rather soft and unsatisfactory business a very prosperous and active one. And this was all done in spite of the fact that the price was raised ten or fifteen dollars per unit.

I say that we cannot alone make a valid patent by commercial success, but what do we have here in the way of anticipation? We have first, a few patents, primarily the Fisher patent and the Dabos patent for burglar alarms; followed up with the suggestion, as the defendants' experts have admitted, the suggestion of the Hooker patent combining these results to produce the structure nowhere found in the patents, Defendants' Exhibits 32, 31 and 34, which are all switches that could be adapted for this purpose if one had the essential idea of making the structure as Nelson conceived it.

374 None of those switches answers this claim of the patent here in suit, none of them even approximates it.

In addition to those three patents, there are some Design patents which do not involve switches but involve springs mounted on a board for the resilient value they have.

They have, in addition to those patents, offered the Mabs Application which shows a device practically like the "Bolo" device, except the spring, instead of being compressed immediately under the surface of the board, extended from the shaft below the switch level down to the floor of the machine, so that the switch could be restored by the spring. But we have there practically the "Bolo" device, and there is no controversy here about the fact that the "Bolo" device was made, probably 3,000 of them made sometime between August 1936 and the spring of 1937 when the Pacent Novelty Manufacturing Company went out of business.

The "Bolo" device does not respond to the claim. It does not suggest the structure of Nelson. It lacks everything in Nelson that made Nelson successful. It lacks simplicity. It lacks the fact that it can be mounted right on top of the board, and it lacks the adjustment means whereby it can be immediately readjusted if it becomes out of adjustment.

The "Bolo" device is a complete failure compared 375 with the Nelson device which has had a very substantial success.

In addition to those alleged defenses on anticipation,

there is one other which was presented here by those two springs, Defendants' Exhibit No. 8, to which I would like to revert a little later in the argument.

We come, then, to the question of the infringement. We have six devices here in evidence. The first of those is the first device made by Chicago Coin Machine Company in which instead of having a ferrule embedded in the board to form contact with the end of the pendantly supported spring, they reverse the order; they put a small loop at the end of the spring, they put a nail into the board. The thing is mounted in exactly the same manner as Nelson, adjusted in exactly the same manner as Nelson and works in exactly the same manner as Nelson.

The Court: What is that?

Mr. Ooms: That is the Chicago Coin Machine Company's. Your Honor, the only difference is, instead of having the pin on the coil spring, they embed the pin in a board, in the form of a nail, and instead of having the ring down in the board, they put the ring on the end of the spring.

The Court: Go ahead.

Mr. Ooms: The next device, and here we find the adroit—

376 The Court: You are going right through the alleged infringing devices, now, are you?

Mr. Ooms: In exactly the order in which they introduced them.

The Court: All right.

Mr. Ooms: The next device is Plaintiff's Exhibit No. 6, which is the second device made by Chicago Coin Machine Company. One of the Chicago Coin Machine Company's own experimental engineers was unable to identify it. That is absolutely unexplainable to me. We have stipulated that they made it. But here, instead of embedding the pin directly in the board, they use a very adroit subterfuge of embedding the pin in the small metal plate which is made integral practically for all functional purposes, with the board, but secured to the central standard or pillar upon which the spring is pendantly supported. They embed the pin in the board, except that they rely upon an independent accessory to hold it there, that disc which is secured to the standard from which the spring is pendantly supported.

In the copies of The Billboard here, which are in evidence, it is shown that these diversions were not attempted

until some time after the defendants were on the market with their games.

377 The illustrations in The Billboard show devices exactly like those we were making.

We take the one that is nearest to Plaintiff's Exhibit No. 6, which is Plaintiff's Exhibit No. 10.

The Court: How is the support made, by putting a wire under the bent-over portion of that nail?

Mr. Ooms: That is right, soldering it to that nail, soldering the other to the small connector at the bottom of the pillar.

The Court: These plates serve no purpose.

Mr. Ooms: No.

The Court: No useful purpose at all.

Mr. Ooms: No electrical purpose. Merely the purpose of support. It is absolutely insulated from the pillar by the small sleeve of insulation which your Honor can see there.

The Court: One is, and the other was insulated—supposed to be insulated by space from the nail.

Mr. Ooms: That is correct. In one place, the plate does not support the nail at all and in the other, it supports the nail and is insulated from the central pillar.

The Court: All right.

Mr. Ooms: Then, I turned to Plaintiff's Exhibit No. 10 out of order, to the Genco device, because that is practically identical with the device last referred to, Plaintiff's Exhibit No. 6, except that instead of having the insulating sleeve about the pillar from which the disc is supported, the insulating sleeve is now placed about the pin. But the connection of the electric circuit and the contact is made in identically the same manner.

The Court: What is that, a carbon contact there, at the end of the spring?

Mr. Ooms: No, I do not think so. Is there a ferrule on the end of the spring? I have only one of those. There is just a small loop at the end of the spring—there is a small metallic washer of some kind, probably of phosphor bronze or some material that does not pit as readily as piano wire. That is to prevent the freezing that the witnesses have testified to, if a voltage of any consequence is used, 12 or 18, in these machines, or even down to 6 volts, if you get the contact in a certain way you will get a certain amount of heat produced there which will fuse the metals. That can be avoided by using a carbon ring

such as we use or by using a metallic washer of phosphor bronze which does not arc as readily.

One of the witnesses testified to the fact—Nelson, the inventor, testified to the fact that if you used silver or platinum, you would have the same result, no arcing 379 and no freezing of the contact.

Now, then, turning to the first of The Exhibit Supply Company devices, Plaintiff's Exhibit No. 7, it was practically like Plaintiff's Exhibit No. 5 except that here an electric bulb is placed inside the spring. There is a small socket shown mounted inside there, so that when the circuit is closed, in addition to the registry upon the back board of the machine, you get an instantaneous lighting of the switch itself, obviously to attract attention, and they give the play a little more animation and interest, but there the electric contact is made in the same manner as made in Plaintiff's Exhibit No. 5.

We come, then, to a new species, Plaintiff's Exhibit No. 8, which is a great deal like Plaintiff's Exhibit No. 6, and in that again you have a support separated from the central pillar by an insulating sleeve, but here, instead of carrying a plate along the board to make the board in two layers or two strata, they now make the sleeve about the post and separated from the post by the insulation, they make that sleeve the contact member and support it there so that the central portion of the spring—the spring is brought inwardly in a spiral form and the center ring will contact that sleeve only when the spring is flexed. 380 They have moved the pin, as it were, into the middle of the spring, and made it completely surround the standard. The function and the result are exactly identical.

The Court: Whose is this?

Mr. Ooms: That is The Exhibit Supply Company's.

The Court: All right.

Mr. Ooms: The last device is the third variation of The Exhibit Supply Company and it is a great deal like the one just shown the Court, except that the insulating sleeve, which was in intimate contact with the pillar itself in the previous structure, is now made in the form of a rather wide sleeve and suspended from the top of the standard. It is in the form of a cup, a plastic cup which is suspended from the central standard and is completely surrounded at the bottom by a brass ring which will contact the outer portion of the spring when the spring is

flexed. The device operates in identically the same manner with those as heretofore described.

It escapes the literal language of the claim, we can't deny that, but it comes within the most elementary application of the doctrine of equivalence as announced by the United States Supreme Court.

That has came off before, your Honor. I don't think 381 it is of any consequence. We should have cemented it in there.

I think that that states our position with respect to the problem of infringement fairly well.

The claim calls for:

"a ball rolling game"—
as environment—

—"having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendants from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor,"—

Now, there can be absolutely no difference here between the parties as to the presence of all of those elements. 382 That is in Claim 4.

Now, I come to the final element:

"and conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit."

Now, they began with the nail embedded in the table. Then, they used the separate disc with the nail still penetrating the table but suspended by an utterly useless plate which is substantially part of the table. Then, they moved the pin over in the form of a circular sleeve about the central pillar and finally they use that enormous bell-shaped sleeve to separate the conductor from the spring, but it is still mounted on the standard itself, which I think by all tests shows it is embedded in the table. So that whatever support is there is the support found by embedding the structural unit in the table and supporting the companion contact from it.

Now, from that point I pass onto what is probably the critical issue in this case: whether Pacent Novelty Manufacturing Company produced this device prior to August and September of 1936, when the testimony shows without any argument that Nelson produced it. What are the 383 facts of record?

We have got two completely different stories here, one of which is made out by the facts of record as they occurred to the parties, and the other is the story as reconstructed and recast by Sol Silverstein, and he runs through this case like a red thread.

Fitch went to the Pacent Novelty Manufacturing Company in June of 1936. Johnny Grimm, the first of the Grimm boys who testified, said it was in March, 1936, but the documentary evidence here shows he went there in June, 1936. They were working on this game "Bolo." He said they had a lot of these boards made up and they had the pins all ready, and that was the thing he had to get out, so he went to work on that and in due time "Bolo" was announced in The Billboard and by the middle of August they began showing them.

I do not think that I need pay any attention to the "Bolo" switch as it is a completely different structure than our spring. It is not the "Bolo" device that concerns me here. It is the device that is supposedly to be represented by this spring, Defendants' Exhibit 8.

We do know that they produced "Bolo" and produced about 3,000 of them. We knew they were producing them in the fall and winter of 1936, and that in August, 384 1936, and in December, 1936, they called their patent attorney over to Utica, who made a number of sketches. That was the man Wilder. He consulted not Fitch, who is supposedly the inventor in this picture, but he consulted the man Kay, who was not produced in this case at all and who was general manager of Pacent Novelty Manufacturing Company. Kay drew up some drawings. If it had been Fitch's development, I am satisfied that he would have been in the conference to make up drawings for the patent attorney. The patent attorney that made up these drawings there, Wilder, took them off for the purpose of filing a Patent Application.

Pacent continued through those months to make "Bolo." Then they changed the form of their switch somewhat and put a pin mounted on a ball and sold a game known as

"Rack 'Em Up." We unfortunately have been unable to procure one.

Then, in December, 1936, Fitch says he knew that competitors were coming out with this "Bumper" game. Silverstein, who was the selling man for the Pacent, said he saw one in the Pacific Amusement Company experimental room in December, 1936, before the show in Chicago in January, 1937, when Bally first demonstrated its "Bumper" game.

We do know from von Stoeser's testimony, and he is 385 the only man connected with the Pacent Novelty Manufacturing Company who came into this court room to testify, we do know that a game was brought to Utica, a Bally "Bumper", it was exhibited before Johnny Grimm and the others, and Johnny Grimm and Martin Grimm were both there, I believe, and instead of saying, "Well, that is the thing that we saw back in June in our laboratory that Fitch produced," one of the Grimm boys said, well, "Why didn't we think of that?"

Then, they went to work to produce one and they produced this game "Stop 'em".

Here was Silverstein in this picture, who was supposed to know all about this, one of the Grimm boys and Fitch, and certainly when they go to make up one of these devices, to make a device anything like Defendants' Exhibit 8, they make a Chinese copy of the Bally "Bumper" game. The two machines are back there. There are a different number of springs. The springs came from the same source. They are the same. We see that everything about the two machines is practically identical.

Now, if these two gentlemen had invented this, it seems to me they would then have brought forth this thing they had in their laboratory, in this highly competitive field, and shown it to the world.

386 It is a strange thing that Kay, who consulted the patent attorney, was hardly mentioned in these depositions. He was known as general manager, but his participation in this, and the fact he is the man who talked to the patent attorney would have made him, I think, one of the real persons to call and examine in this case. What is that, your Honor?

The Court: Well, I merely cleared my throat, but I will ask a question.

Mr. Ooms: I am sorry.

The Court: How is the circuit completed in this Plaintiff's Exhibit No. 9?

Mr. Ooms: The lead is run off from that brass ring at the bottom of the plastic shell and that enters the hole.

The Court: At the point, at the point where the plastic material is cut away.

Mr. Ooms: Yes, your Honor.

The Court: And that lead runs where?

Mr. Ooms: Through a hole in the board. That standard rises through a hole in the board. Then, the other lead is led to that bracket which supports the spring from the top.

The Court: It goes down through the same hole?

Mr. Ooms: Yes, yes, your Honor.

The Court: All right.

387 Mr. Ooms: Those are the facts as we know them.

They came out with this "Stop 'Em" game copied exactly after the Bally "Bumper." There was no suggestion, then, that Fitch had in their own laboratory produced the device.

Now, we come to the other phase of this case, the version which Sol Silverstein developed and Sol Silverstein, although he was here Monday, although his deposition was taken, he did not come into court and testify. His deposition could have been quashed on that ground, but no attempt was made to quash it. If a man does not want to appear in this court, I think we can draw our own inferences from that. He is the man who controlled everything, in fact is now employed by one of the defendants and filed a copied Patent Application.

We do know in April, 1939, Mr. Threeedy was scouring that territory at Utica and talked to Mr. Fitch. We know that in that same month Mr. Silverstein was down there and conferred with Mr. von Stoeser, he conferred with Mr. Grimm, he conferred with Mr. Fitch. He went to Fitch and he made a contract on April 17, 1939, that he would file an Application, a Patent Application for Fitch on this switch, he would pay him \$50.00 then, which he did, he would pay him \$50.00 when the Application was filed, and he would pay him \$400.00 when

388 the patent issued. He must have known that no patent could ever issue if the true facts were made known to the Patent Office. He approached von Stoeser. He made a proposition to him that if he made a proper Oath for a Patent Application, that is, a deal could be

made with us and he would split with von Stoesser, and von Stoesser said he would have no part of it.

The next thing we reach is the depositions in July, 1939. Now, there is a very astonishing thing about these depositions. The man Kay who was the general manager for Pacent Novelty Manufacturing Company and who was the man that conferred with the patent attorney upon the "Bolo" Application was not there. He is hardly mentioned in the depositions, and the man von Stoesser's name does not appear anywhere in those depositions. They tried to make a deal with von Stoesser and it didn't work, so they carried the date back to June and July, 1936, when he was not with Pacent, and leave him out of the picture entirely.

What have we got in the way of physical evidence of anticipation? Johnny Grimm produced from a box, a sort of a junk box with a ball and some screws in it, these two little springs, Defendants' Exhibit No. 8. He said Fitch had made them himself in March, 1936. Fitch was not even positive. In fact, his testimony leaves 389 it extremely wide open whether or not those springs were used at all (page 64):

"Q. Now, I hand you herewith, Defendant's Exhibit 8 marked for identification, and ask you if you can explain what the two little elements are that are attached to Exhibit 8?

"A. Those are very similar to the thing that gave me my idea of using them, the ones I had had a long nail soldered in through the spring.

"Q. Do you know where those wire springs came from?

"A. I couldn't tell you no, yes, I think I know where the first I used came from—we had some games fixing for one of the operators in town which had on what we call mushroom springs on them, I don't know exactly anything else about them.

"Q. These events you have testified to took place on or about June of 1936?

"A. They must have taken place in about June.

"Q. Why do you say they must have, Mr. Fitch?

"A. Because these games, to the best of my knowledge, came out very near or very close to the second 390 and week in July with this other contact that is now on similar to it, and all these contacts were thought of before that last contact."

He would have us believe, in spite of the fact they had their own finished parts for "Bolo", he was allowed to devote himself to the work of producing this other one. They had no drawings or no models made at that time. We have those two little springs. The drawings here in evidence were all made at the time of the taking of the depositions and two models, Plaintiff's Exhibits Nos. 10 and 11, were made by counsel for defendants prior to the time when these depositions were taken and exhibited to the witnesses.

Von Stoesser was in that plant. He was in charge of all this engineering and production. He was Fitch's immediate superior. He never saw anything, and the subsequent conduct of all the parties indicates that there was not anything for him to see.

The patent attorney was told nothing about it and when the "Bumper" game became successful and came out, nobody said a word about these prior developments of Fitch which are so fully testified to in July, 1939.

The Supreme Court of the United States has laid 391 the rule down pretty definitely as to how to treat claimed prior use which was supported only by oral testimony.

In *Deering v. The Winona Harvester Works* (155 U. S. 286, 300; 39 L. Ed. 153, 159), the Court said:

"Granting the witnesses to be of the highest character, and never so conscientious in their desire to tell only the truth, the possibility of their being mistaken as to the exact device used, which, though bearing a general resemblance to the one patented, may differ from it in the very particular which makes it patentable, are such as to render oral testimony peculiarly untrustworthy; particularly so if the testimony be taken after the lapse of years from the time the alleged anticipating device was used. If there be added to this personal bias, or an incentive to color the testimony in the interest of the party calling the witness, to say nothing of downright perjury, its value is, of course, still more seriously impaired. This case is an apt illustration of the wisdom of the rule requiring such anticipations to be proven by evidence so cogent as to leave no reasonable doubt in the mind of the Court, that the transaction occurred substantially as stated."

The Supreme Court mentions personal bias. Just think of these witnesses and their testimony, and von

Stoeser was not called by the defendants. Here was a man who was about that plant who was Fitch's immediate superior. Silverstein had approached him and he washed his hands of the whole thing. He said he would have no part of it.

John Grimm testified. He fixed the thing, the time as in March, 1936. He is a man who produced these things for the defendants. He had them in his custody. He was sort of a tramp. He pretty well described his occupation when he said, "Wherever there was a dollar I did it."

John Grimm's position in that business is pretty well summarized by Fitch, who said, when asked if he knew John Grimm, "He seemed to be employed there, I know he went after shipments and kept the stock up to date." That is about the role he played.

Now, we have Martin Grimm's deposition. He was running a restaurant at the time all this occurred and when asked point-blank by counsel whether or not he had been promised any compensation for his work there, he used the words "Not yet," about five or six times.

(Page 105.)

393 "Q. Now, have you any interest of any kind in the outcome of these proceedings?

"A. Not yet.

"Q. What do you expect?

"A. Nothing yet.

"Q. How about tomorrow?

"A. I don't know about tomorrow.

"Q. But you do expect something?

"A. Well, I don't know anything yet.

"Q. You expect to get your answer from that?

"A. I don't know.

"Q. But you do expect an answer?

"A. Maybe good will.

"Q. Whose good will?

"Sol Silverstein's.

"Q. And he is an employee of the Chicago Coin Manufacturing Machine Company?

"A. That is what he says.

"Q. He sells their products?

"A. That is right.

"Q. Did he offer you an interest in this patent in case you get one?

"A. Not yet.

394 "Q. But he told you you would get one after these proceedings?

"A. Not yet.

"Q. But soon?

"A. I don't know.

"Q. You hope?

"A. We all hope for the better.

"Q. Have you signed any papers with Silverstein?

"A. No papers with anybody.

"Q. How much has he promised you?

"A. Not a thing.

"Q. What interest in the patent has he promised you?

"A. Nothing.

"Q. But you do say you expect it?

"A. Well, we haven't made no agreements of any kind yet."

And Johnny Grimm himself claimed to have made all these developments. He was confused about when Fitch did it, but when asked on cross-examination (p. 43):

"Q. These ideas on the pin, and so forth, and bumper, are your own ideas?

"A. They have been created upstairs.

"Q. And created by you?

"A. Yes, sir.

"Q. And you never filed a patent application?

395 "A. We started to file a patent application with a patent lawyer in Utica named Mr. Wilder."

We then come to the man Silverstein. He was employed by Pacent Novelty Manufacturing Company in late 1936, November. He had the inexplicable facility of getting around experimental rooms where he had no business. He contends that he walked into this Pacent laboratory in July, 1936, or June, 1936, and saw these developments of Fitch with the springs, Defendants' Exhibit 8.

Johnny Grimm testified that only he and his brother Martin and Fitch were allowed in that room. Yet, Silverstein, not an employee but a prospective customer, only coming into this company when they were advertising not the game, because they had not produced it, but advertising with these so-called blind ads or teaser ads, was permitted to go into that laboratory and see what was going on.

And the strange thing is that in December, 1936, when he was employed by Pacent Novelty Manufacturing Company, he said that he walked into the experimental room of the Pacific Amusement Company here in Chicago and saw the first bumper game that he saw. Now, there was the time, if Silverstein—who apparently has an uncanny instinct for making a dollar in this business, if he 396 knew that Fitch had this thing, then, was the time he should have spoken up. Pacent Novelty Manufacturing Company was very deeply interested in getting a machine they could sell, and here, this machine of the Pacific Amusement Company was on the market. The Nelson bumper came on the market. His own company subsequently, Chicago Coin Machine Company, went into this thing, and not a word is heard from Silverstein until the depositions are taken in July, 1939. We know why. It was because this whole story had not been fabricated at that time. There wasn't anything until he got ahold of Fitch and paid him \$50.00 in April, 1939, until he approached von Stoesser and told him what his proposal was, to get some affidavit in support of Fitch's Application and then shake down Bally and split with von Stoesser. I called von Stoesser to the stand and asked him if it was not so. He testified it was, and von Stoesser's testimony was never contradicted.

Where was Silverstein? He paid \$50.00 to Fitch, when he must have known that the prior use that had already ripened barred Fitch from ever getting an Application allowed, and he offered Fitch another \$50.00 when the Application was filed. He wanted to keep that \$50.00 dangling over Fitch's head until these depositions were taken, and he kept another \$400.00 dangling over the 397 rope until the time when the patent should issue.

We then get down to Fitch. He was always a subordinate in the plant, and received \$15.00 a week. A man's humble work does not have anything to do with his character, but it makes it quite likely that he wasn't doing anything experimental work in the Summer of 1936, when they were attempting to put this "Bolo" game in operation. Fitch says he produced this device involving springs something like Defendants' Exhibit No. 8. He never laid any claim to it when, in December, he saw competitors' machines come out. He never laid any claim to it when his own company came out with a bumper spring that copied the Bally spring exactly. At that time

there was no Patent Application filed, no race to establish a record here of the true source of the inventor's intention, if Fitch was an inventor, nothing until July, 1939, when these depositions were taken.

Fitch was not the man who was consulted by the patent attorney in August and September, 1936. His alleged device was never used. He is corroborated only by the two Grimm boys, one of whom is ever hopeful, and by Sol Silverstein, the man who bought his Patent Application in a scheme that is entirely too transparent to mislead the Court here.

We get to the point, then, of Fitch taking \$50.00 398 from Silverstein in April, 1939. And when Wolff sees him in July, 1939, calls on him in the evening and asks him to see his contracts, Fitch says, "None of your business." Then Wolff offers him some money. He said he could make it worth some money, and Fitch asked him how much it was worth to him. Wolff said \$25.00. So Fitch sells Wolff a copy of his contract for \$25.00. He comes well within the classification of Grimm's own testimony of what he was doing, that wherever a dollar was involved he did it.

Then we come to the most solemn and I said in my opening statement, with considerable caution, the most astonishing thing of all:

In October, 1939, there was filed in the United States Patent Office a Patent Application as false as any document ever could be. It shows in the illustration (and I would like to hand this up to the Court), it shows all of the structures of the "Bolo" game. It shows the device which Fitch claimed to have invented in the summer of 1936 and Grimm and Silverstein attempted to corroborate him. He copied the five claims of the Nelson patent. There accompanied the Fitch sworn statement that he knew of the Nelson patent and wanted to be thrown into

Interference with it, and it was accompanied by Chicago Coin Company's counsel's statement of comparison of claims, showing that five claims were copied from the Nelson patent, and it was desired to throw that Application into Interference. That Application was filed in October, 1939. Those devices had all been on the market by the end of the year 1936, almost three years before.

The Oath was false and everybody connected with it knew that that Oath which said that that device had not been in use for two years, must have known it was false.

Now, what does the law do in a situation like that, with people like Fitch and Silverstein, Fitch who made that Oath and Silverstein who procured it? The law says if a man testifies falsely in any particular, his testimony may be ignored, and you shake those two gentlemen out of this case and there is no case of anticipation.

Another strange thing happened in the prosecution of that Application. It was originally filed by counsel for Chicago Coin Machine Manufacturing Company and owned by Silverstein. Subsequently, the last document in the file shows he substituted his associate counsel as attorney in the case, and peculiarly enough gives us an address, not what the ordinary patent attorney would do who gives an office address, but gives a home address out

of the loop of Chicago for his associate attorney's 400 name and address. The purpose of that, I don't know, I cannot understand that document. I cannot understand the whole procedure out of which it ripened and grew, but it has an odor that runs through this case.

I can only say in closing on that, what probably one of our great presidents has said:

We cannot absolutely know that all these exact adaptations are the result of preconcert. But when we see a lot of framed timbers, different portions of which we know have been gotten out at different times and places and by different workmen— * * * —and we see these timbers joined together, and see they exactly make the frame of a house or a mill, all the tenons and mortises exactly fitting, and all the lengths and proportions of the different pieces exactly adapted to their respective places, and not a piece too many or too few, not omitting even scaffolding—or, if a single piece be lacking, we see the place in the frame exactly fitted and prepared yet to bring such piece in—in such a case we find it impossible not to believe that * * * (the participants) all understood one another from the beginning, and all worked upon a common plan or draft drawn up before the first blow was struck.

I think I have about five minutes remaining to reply.

401 *Argument to the Court by Mr. Threedy.*

Mr. Threedy: May it please the Court:

I am of the sincere belief that it is proper at this time to first consider the issue of infringement.

Now, while Mr. Ooms has briefly referred your Honor's attention to the physical exhibits, I wonder if I could ask the indulgence of the Court with reference to the pamphlet, the little book that I have presented to the Court with the drawings of the various defendants' devices, and I would like to just make a very brief summary of these particular devices.

I refer your Honor's attention to the first device, Defendants' Exhibit C-1, and I will refer to each of these devices in so far as they only relate to the companion or complementary conductor pin or means.

Now, in the first device of Chicago Coin Machine Company, you will note that the pin 4 is driven through the board B and it has the underside 5 angled to have soldered thereto one end of a circuit wire. The upper portion of the pin 4 extends a substantial distance above the board and is engaged by ring 6 formed on the lower convolution of the spring which terminates a substantial distance above the board.

402 Now, if your Honor will refer to Defendants' Exhibit C-2, there, the conductor pin 4 includes an enlarged portion 4' suspended from a plate 3 mounted on the board and having a central opening through which the standard 2 projects and is insulated therefrom by the insulation shown.

The enlarged portion 4' of this conductor pin has an element 5 secured thereto for attachment to a circuit wire. The pin 4 extends substantially above the board and is engaged by a ring 6 formed as a part of the lower convolution of the spring 1, terminating a substantial distance above the board.

In the next device, Defendants' Exhibit E-1, what I have said with reference to Defendants' Exhibit C-1, the remarks equally apply to this particular device, as the structures are substantially the same.

So we will pass over to the Defendants' Exhibit E-2. There, your Honor will note that there is a plate 3 that has contact with a sleeve 4 mounted upon an insulating sleeve 2' surrounding the standard 2. From this plate 3 is suspended a flexible wire 5 soldered to the plate as shown. This flexible wire extends through an opening 8 and constitutes one side of an electric circuit. The lower convolution of the spring 1 has a ring 6 carried thereby, and this ring 6 encircles the sleeve 4, whereby, when

403 the spring 1 is flexed, a contact is made with the sleeve 4.

Now, the next device is Defendants' Exhibit E-3, The Exhibit Supply Company's device. There, the conductor means or companion conductor is in the form of a ring 4 secured to the annular lower portion of insulating cap or sleeve 2' supported by the bracket 2, connected to the board B as at 10. From this ring 4 is extended a flexible wire 5 which passes through an opening 8 through which the bracket 2 likewise passes.

Now, the last device includes a plate 3 that is secured to the standard 2 by the nut 11. This plate 3 carries an insulating sleeve 9 which projects into an enlarged opening 8. This insulating sleeve 9 carries a conductor pin 4, the lower end of which is indicated as 5 and is adapted for connection with a circuit wire. The upper portion of the conductor pin extends substantially above the board B and is engaged by the ring 6 carried by the lower convolution of spring 1, which spring terminates a substantial distance above the board.

With that in mind, with the description of these devices in mind, I point out that it is a well established rule 404 of Patent law that the omission of an element on a combination claim avoids infringement.

It is our position that in the light of the File Wrapper history, neither of these devices include a conductor means embedded in a board and adapted to be contacted by a portion of the pendantly supported spring when the same is flexed by impingement of a ball thereagainst.

The Court: What is that now? Say that over again?

Mr. Threedy: It is our position that the various devices of the defendant do not infringe the claim in issue, because neither of these devices include a conductor means embedded in a board and adapted to be engaged by a portion of a spring when the spring is flexed by the impingement of a ball against the spring.

The Court: Now, just a minute.

Mr. Threedy: Surely.

(Whereupon a short intermission followed.)

The Court: Yes.

Mr. Threedy: Now, in connection with this position, if the Court please, we say that under the doctrine of file wrapper estoppel, a patentee cannot resort to the doctrine of equivalence to make out a case of infringement. Now,

to bear this point out, may I ask your Honor to refer to the chart claim that I gave to your Honor during the hearing of this case. It is the photostatic print. I believe that is it. I want to particularly refer to the righthand side of the chart under the heading Application Claim 7 allowed as Claim 4 when Amended, as shown in red. The amendment is shown in red as I have indicated above. Now, referring particularly to the 5th element of the claim, reading that claim as Application claim 7, that is the claim that the patentee presented to the Patent Office, and the claim read, before the amendment:

"and other conductor means carried by the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit."

This claim as thus presented was rejected by the Patent Office as your Honor will note on the lefthand side of the sheet under the heading of Action, particularly the second rejection where it was rejected as failing to distinguish—"to distinctly claim the invention as required by Section 4888," the Examiner remarking, "It is old in the art to make an electrical contact by flexing a coil spring as shown by the art already cited in the case." And may I pause and say that one of the art is the Fisher Patent No. 501,777.

406 "In order to distinguish over the references therefore, the applicant's particular type of contact structure, comprising an extension on the coil spring adapted to engage an annular contact embedded in the table, must appear in the claims."

As a result of this Action, the Applicant then came back, as shown in the red ink, element 5, and he cancelled "other" and he also cancelled "carried by," and he inserted "in said circuit and embedded in" the table.

The Court: He just said what he said before, and the Examiner let him get away with it.

Mr. Thredy: No; that is not correct, your Honor.

The Court: Well, what is the difference between "carried by" and "embedded in"?

Mr. Thredy: Now, may I answer that question by a moment's diversion, because when I refer—

The Court: File Wrapper estoppel, I don't know much about it, but I do know that there are cases that say that there is no File Wrapper estoppel when an applicant

refuses to go along with the Examiner and just says in another way what he said before.

407 Mr. Threedy: But this Applicant says "in"—That is not the situation here, your Honor.

The Court: It looks to me like it.

Mr. Threedy: Well, let me deviate for a moment from my position. Let us just refer to the authorities and if that supports my position, then I think the Court will see my particular position.

The Court: Now, here the Examiner said you have got to show, "In order to distinguish over the references therefor, the applicant's particular type of contact structure, comprising an extension on the coil spring adapted to engage an annular contact," necessarily.

Mr. Threedy: —"embedded in the" board.

The Court: Well, certainly. The patentee did not acquiesce in the suggestion that he must show his annular contact embedded in the table.

Mr. Threedy: Yes; he did.

The Court: What did he say about "annular"?

Mr. Threedy: He says, when he amended his claim—

The Court: Where does he say "annular"?

Mr. Threedy: Where in the claim—

The Court: —say anything about it?

Mr. Threedy: Where is your Honor referring to?

408 The Court: I am referring now to the amendment in his claim.

Mr. Threedy: No, He says, "conductor means in said circuit"— Now, the "conductor means" is the annular contact. We have to refer to this:

The Court: Now you are just inserting something.

Mr. Threedy: No, no.

The Court: Yes, you are.

Mr. Threedy: I don't propose to do that.

The Court: You are.

Mr. Threedy: Now, the "conductor means," as I take the position—

The Court: The Examiner says he must show "engage an annular contact"— Now, do you see anything about "annular" over in there?

Mr. Threedy: He says it is embedded in the board, your Honor.

The Court: Yes.

Mr. Threedy: Now, if that is not so, then in order—

The Court: I can't rule with you on File Wrapper estoppel.

Mr. Threedy: Well, let me refer to the authorities, if your Honor please—but before I do that, let me refer your attention to Defendants' Exhibit 3—

The Court: Well, isn't this the law now— You 409 know as well as I do that I know very little about these things, but, if an Examiner says to an applicant "No, you can't do this and you must do that" and then the applicant does that, then he can't on the trial of a case say it means this.

Mr. Threedy: And he cannot by the same—

The Court: Pardon me. Just a minute.

Mr. Threedy: Yes. Pardon me.

The Court: But instead of doing that, he goes ahead and does this in spite of the Examiner, and the Examiner lets him get away with it, then he is not estopped on the trial in that the defendant did this.

Mr. Threedy: And by the same token, if the court please—

The Court: Now, if the reporter has got that down so it is understandable, why, he is a good reporter.

Mr. Threedy: And by the same token, if your Honor please, a patentee cannot ask a court, when confronted with the issue of infringement, to reconstruct his claim to include in that claim or to give that claim a construction which it would have had had he not placed that express limitation in the claim.

The Court: But I am pointing out to you that he didn't place any limitation in the claim.

410 Mr. Threedy: Well, what is the conductor means?

The Court: He was not to do it, but the Examiner let him get away with it.

Mr. Threedy: The conductor means is— Let me refer to the authorities and I think that may clear up one of your points.

The first authority is the *Dillon Pulley Co. v. McEachran, et al.*, 69 Fed. (2d) 144, at 146, and the Court said there that

"* * * Where there is an express limitation in the claim, there is no ground for application of the doctrine of equivalents if the accused device departs from the claim in that particular."

Now, I refer to the Third Circuit Court of Appeals,

the case of *Yates v. Smith, et al.*, (271 F. 33, at 34, 35). Does your Honor want to see the volume?

The Court: Now, what are we talking about, File Wrapper estoppel, or are we talking about equivalence?

Mr. Threedy: I cite that as an introduction to the File Wrapper estoppel that I will proceed to discuss with the Court.

411 This is the case of *Yates v. Smith, et al.*, 271 F. 33, at 34, and it says this:

"In that regard, and without needlessly going into details, it suffices to say that in the two combination claims of Bogenberger's patent there is in one the element of 'a supporting member adjustably secured to the stile of the frame,' and in the other the element of 'an arm adjustably secured to the stile of the frame.'"

The Court: What time did you quit arguing, Mr. Ooms? What time did you start, Mr. Threedy?

The Reporter: About five after eleven.

Mr. Threedy: Five after eleven, the reporter says.

The Court: Mr. Ooms said he had five minutes to reply. Mr. Threedy, twenty-three. It must have been about 11:03.

Mr. Threedy: Well, about. I have only three minutes—

The Court: I am not going to cut you off. I am going to let you talk 20 minutes more.

Mr. Threedy: Well, I am merely trying as an attorney before the Court to apply my earnest and sincere belief to what I believe to be the facts and the law of the case.

The Court: It may be you are right. That is the 412 unfortunate thing about it, but I have to rule.

Mr. Threedy: Well, I think we have to find out what the law is and then apply the law to our particular case.

Now, I want to cite a case that was handed down by Judge Raymond of the District Court of Michigan, which was subsequently affirmed on appeal, and that is the case of *Gellman v. Oliver Machinery Co.* (18 Fed. Suppl. 383, at 384, 385 (D. C. W. D. Mich. S. D.)). I was the attorney for the plaintiff in the case, and the principle there laid down— The claim related to a bread slicing machine in which there was a stabilizer secured to the chute. The defendant's structure in that case had the stabilizer not secured to the chute but indirectly to the chute through the frame of the machine, and here is what Judge Raymond said:

"While it is recognized that a mere transposition or

rearrangement of parts or substitution of one location for another does not avoid infringement, it is the view of the court that this principle cannot serve to nullify the rule clearly stated in the case of *Royer v. Coupe*, 146 U. S. 524, 532, 13 S. Ct. 166, 36 L. Ed. 1073, as follows: 'It is well settled, by numerous cases in this court, that under 413 such circumstances a patentee cannot successfully contend that his patent shall be construed as if it still contained the claims which were so rejected and withdrawn.'

Now, my position is precisely this, it is nothing more and nothing less, that in order to make claim 4, in my opinion, read upon these accused devices, particularly the last three devices referred to, your Honor would read this claim in its original condition, namely, this way:

"and other conductor means carried by the table"—Now, because those conductor means are carried by the table indirectly through some instrumentality, they are not embedded in the table. They are carried by the table. Now, the claim as amended says that the conductor means is "embedded in the table." Now, my point is precisely—

The Court: Well, what do you say about Plaintiff's Exhibit 5? What do you say about that? That is conductor means, isn't it?

Mr. Threedy: Which one is that? I haven't these named. Is that the Chicago Coin Machine Company's?

Mr. Ooms: C-1.

Mr. Threedy: C-1. Now, that I think, your Honor, 414 might not be in a position to consider the pin as being driven—

The Court: In that, the pin is conductor means, isn't it?

Mr. Threedy: Yes, but let us look at some—

The Court: Wait a minute, now. Don't go too fast.

Mr. Threedy: Surely.

The Court: Conductor means embedded in the table, isn't that conductor means embedded in the table?

Mr. Threedy: In, in the sense that it is anchored in the table and it is carried by it. So I say in that respect, I think it is a fair construction that that is so.

The Court: Well, what about number 6?

Mr. Threedy: Which one is that?

Mr. Ooms: C-2.

Mr. Threedy: I have these marked "C-1," "C-2"—

Mr. Ooms: That is C-2, Mr. Threedy.

Mr. Threedy: C-2, now, that I don't say is embedded in the table.

The Court: Why not?

Mr. Threedy: Well, it is supported by a plate mounted on the table. It is carried by the table.

The Court: It goes through the table.

415 Mr. Threedy: It is not embedded in the table.

The Court: You are using limitations on words I can't see.

Mr. Threedy: I beg your pardon?

The Court: It goes right through the table. It goes right through the table.

Mr. Threedy: Certainly, it goes through the table, it would have to, but it is not embedded in the table.

The Court: I think it is:

Mr. Threedy: On that point, here is a case of *Thompson v. Pettis*, 44 F. (2d) 420 (C. C. P. A.), if your Honor will listen closely to this:

"The testimony shows that the wires of Thompson's structure in his claimed reduction to practice extended through the sand plug, a hole having been previously provided for that purpose. The Board of Appeals held that the wire so passing through the sand plug was not embedded in the core as required by the count. We agree with the Board that a means loosely passing through a substance or an article is not embedded in it. The 416 means may be said to be carried by the substance or article, but not embedded in it."

The Court: Well now—

Mr. Threedy: It says "The means"— I beg your pardon?

The Court: What is the use of taking a thing like that aside from its context? What is the use of taking it? You can't tell whether it is applicable or not.

Mr. Threedy: Well, I have exhausted my ingenuity to bring my point to your Honor's attention. I will pass over to the next—

The Court: Wait until I go through here and see whether that isn't embedded.

Mr. Threedy: Well, my position is that if you refer to the book of drawings, that is the easiest way.

The Court: This one would go through.

Mr. Threedy: I beg your pardon?

The Court: This one would go through. It isn't in, but it would go through.

Mr. Threedy: It would loosely pass.

The Court: Go ahead.

Mr. Threedy: I believe that your Honor has his mind made up to the point that these devices are embedded, so I will not waste my time or the Court's time on that particular theory.

417 I would like now to pass on to the question of the invalidity of the claim in issue, and may I ask your Honor to refer to the book of drawings that I submitted to the Court here for convenient purposes? Now, before doing that, if your Honor please, in the claim sheet that I gave you, on the righthand side I have entitled it, "Rejected and Cancelled Application claim 2 taken from File Wrapper page 6." Now, that claim was presented and the claim reads precisely—

The Court: Where is this, now?

Mr. Threedy: On the lefthand side of the chart of claims that I handed to you, the photostatic prints.

The Court: Yes.

Mr. Threedy: That claim covers precisely what claim 4 covers, with the exception that the conductor means of the 5th element is not recited as embedded in the board. It would read "a conductor carried by the table", but I think structurally it substantially defines the same device of claim 4, with the exception that I pointed out. The importance of this reference is that this application claim 2 was rejected on the prior art patents, including the patent to Fisher, No. 501,777, with the statement that:

418 "The fact that the applicant's device is designed to be operated by a rolling ball, while other means are used in the references is not considered to be of patentable significance."

It was rejected a second time, for the reasons which I have heretofore pointed out, and the applicant therefore complied with this rejection and cancelled claim 2.

Now, the importance of that reference is in the fact that we find from the File Wrapper history that the applicant's novelty, if any, resided in a conductor means embedded in a board or table, so held by the Examiner.

The Court: Well, the Examiner was just splitting hairs.

Mr. Threedy: Yes. Now, with that in mind, I want to refer first to the "Bolo" device, a device which is admitted by the plaintiff to be prior art. Now, considering this device with the "Bolo" device, considering the Nelson de-

vice with the "Bolo" device, taking them as devices, we find that they were both related or associated with marble pin games, that they are both intended to close or control an electric circuit, that the result of controlling this circuit in both devices is accomplished by the impingement of a ball against an element of the device, that the impingement of the ball against that element causes a spring 419 to be flexed which causes in turn the circuit to be closed.

Now, taking the claim of Nelson, claim 4, in reading it on "Bolo", as I have said, in some form or another we have found in the "Bolo" device a complete anticipation of Nelson.

The Court: That is altogether different. You have got a lever in "Bolo". You have just got a means for restoring a lever to its position.

Mr. Threedy: That is exactly what you have —

The Court: You haven't any lever in—you haven't any lever in the "Bolo" device?

Mr. Threedy: You don't have a lever, but you have the equivalent of a lever.

The Court: Where is it?

Mr. Threedy: A spring.

The Court: Oh no, no.

Mr. Threedy: Now, on "Bolo", isn't the part 1' on the spring the equivalent to that spring 18?

The Court: Well, which is equivalent to a switch.

Mr. Threedy: Well, our position as to "Bolo" is that all the patentee did—

The Court: That is all you say to me, that the switch is the equivalent of a switch.

420 Mr. Threedy: Well, isn't that a fact?

The Court: It may be, under some circumstances.

Mr. Threedy: Well now, let us read the claim 4 on the "Bolo". What have you got in claim 4?

The Court: (Continuing.) And in other circumstances, it may not be.

Mr. Threedy: Now, the fact that a prior art device contains an additional element over the patented device and that it otherwise contains all of the elements of the patented device doesn't make the patented device an invention. I may put a seam in front of this collar or some shield which would flex to hit the spring, but the ball would hit the—

The Court: Yes, but the spring is used in the "Bolo"

device not as a target. It seems to me that the important thing in the patented device is that the spring is used as a target—

Mr. Threedy: And that is not new.

The Court: Well now—

Mr. Threedy: That is shown to have been old.

The Court: Where in the prior art is a spring used as a target and also as a switch? Will you answer that question?

421 Mr. Threedy: I beg your pardon?

The Court: Where in the prior art is a spring used as a target and also as a switch?

Mr. Threedy: I will answer that question by pointing it out this way—

The Court: Is there anything? It isn't in the prior art.

Mr. Threedy: Where the spring is directly contacted by the ball—

The Court: Now, that question is simple: Where in the prior art is a spring used as a target, and also as a switch?

Mr. Threedy: Yes. If your Honor will refer to the book of prior art patents, the Hooker patent as showing the—

The Court: Oh well, over there in the Hooker—

Mr. Threedy: Well, that is a ball game, that is a ball rolling game. That is patent No. 2,042,786, and I direct your attention to Fig. 5.

The Court: Where is that?

Mr. Threedy: No. 2,042,786.

The Court: Figure what?

Mr. Threedy: Figures 5 and 6. The spring is indicated at 29 and the dotted line shows the ball. The switch elements are indicated in Fig. 6 as 27-28 and
422 they control an electric switch as shown by the lead lines leading from the bottom portions thereof.

The Court: Is that a target?

Mr. Threedy: That is a target, yes.

The Court: Where is the target?

Mr. Threedy: Now if you will refer to Fig. 1, you will see at the lower righthand corner of the cabinet, that is a plan view, the object of the ball is to come up on the board and hit that little spring which you see at the very top edge of the board or side edge of the board. It rebounds back there and hits 26.

The Court: Now, don't go so fast.

Mr. Threedy: Yes.

The Court: You are on Figure 1. Where is it?

Mr. Threedy: You see the numeral 26 in the lower righthand corner.

The Court: Yes.

Mr. Threedy: Well, that is the target. That is the springs that are referred to in Figure 5. Now, your Honor will just watch my pencil, it will be more helpful—

The Court: Go ahead. Talk.

Mr. Threedy: Well, the ball comes up the run-423 way 23, and there is an unnumbered rebound element over at the top or side edge of the board that the ball first contacts against and then rebounds from that back into this spring 26 which is a target. The object is to hit that target so as to set up certain electrical circuits in the board, or in the game rather.

The Court: Then what happens? Then what happens?

Mr. Threedy: When the ball hits the element 29, the spring is flexed and the contact thereof brought into contact with the companion contact 27.

The Court: Yes, I see that. What happens to the ball after it hits 29?

Mr. Threedy: Then it rebounds back upon the board.

The Court: All right, that is a spring used as a target.

Mr. Threedy: I beg your pardon?

The Court: That is a spring used as a target.

Mr. Threedy: That is a spring used as a target.

The Court: Very well.

Mr. Threedy: Now, it is our position that in view of the art, particularly in view of the "Bolo" device, that all the patentee did—he may have made a better device, he may have made better results, but all he did was to sub-424 stitute a well-known spring already developed in the art and used it in connection with a ball contact switch, which did not amount to invention.

All of the art to which we have referred relates to contact switches and all those contact switches that we referred to in the art are operated by engagement of an object of some kind or another. We see in the art that they are engaged by rolling balls, by doors, by windows.

The Court: Go ahead.

Mr. Threedy: Now, in connection with this "Bolo" device, as an anticipation, or showing a lack of invention, I would like to have your Honor bear in mind the

language of Judge Lindley of our Circuit Court of Appeals, in the case of *Higby v. A. B. T. Mfg. Co.*, 93 F. (2d) 473 at 74, a case which involved these bagatelle games in so far as a cut-off device was concerned, in a runway, and there the Court said:

"It is unnecessary to decide whether there is complete anticipation. Clear it is to us that the status of the art, at the time the patentees made their device, was such that one dealing with the common bagatelle board and the different elements used in connection therewith, upon adaptation of the same to the modern use, 425 exercised nothing but mechanical skill. The patentee's action did not arise to the height of invention."

And he says:

"A mere carrying forward or new or more extended application of the original thought, a change only in form, proportions, or degree, the substitution of equivalents, doing substantially the same thing in the same way by substantially the same means with better results, is not such achievement as will sustain a patent."

Now, in the case at bar, it is very possible that it is a better looking device than "Bolo", it may have a better resiliency and it may have better results, but, what has the patentee done? He didn't invent a ball actuated contact switch, that was shown by "Bolo", that is shown by Fisher. All he did was to substitute a well-known equivalent already used in the art for the pin of "Bolo".

Our Seventh Circuit Court of Appeals, in the case of *Maryland Baking Co. v. Overland Candy Corporation*, 87 F. (2d) 816 at 817, in referring to the Supreme 426 Court case of *Railroad Supply Co. v. Elyria Iron & Steel Co.*, 244 U. S. 285, 290, said:

"It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufacture.

He said;

"Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers who make it their business to watch the advancing wave of improvement, and gather its foam in the form of pat-

ented monopolies, which enable them to lay a heavy tax upon the industry of the country, without contributing anything to the real advancement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities to lawsuits and vexatious accountings for profits made in good faith."

And Judge Evans, of our Circuit Court of Appeals said: (*Atkins et al. v. Gordon*, 86 F. (2d) 595, at 596)

"One may legitimately study the patent and microscopically examine the language of the claim in order to make a product which will serve the same purpose and yet avoid infringement of the patent. Such a right is the logical, beneficial result which was sought through the adoption of the comprehensive patent system of our government. Protection to him who acquired a valid patent was assured, but the validity of the patent depended upon the applicant's describing and clearly setting forth his invention. This clear disclosure was the consideration for which the public granted a monopoly. The disclosure made it possible for others to make different and better products. It inspired others with a desire to meet in competition the article covered by the patent without infringing the patent."

428 And he goes on to say that it is not a question of appearance, but it is a question of whether or not the claim of the patent has been infringed.

And I sincerely say to your Honor that even long before the time that Nelson entered the field, contact switches were old, they employed spring means engaged by an object to close those contact switches. Nelson was not the first to bring into the pin game business such a contact switch, one where no holes were required on the board.

The forerunner of this entire ball contact switch was not in Nelson, but it was in the Patent Novelty Manufacturing Company, a new company who over their short life sold approximately 4,000 of these games. They seen, they appreciated the advancement here of "Bolo" and saw what they did. What did they say? They said we don't want to use a bowling game, because we would have to make a bowling game, so we will resort to the prior art and we will substitute a spring.

I am of the opinion that under the law and facts that

I have stated, the prior art either anticipates the 429 claim, and I am inclined to say it anticipates the claim, or it indeed shows that there was no invention defined and that was the position of the Patent Office. We can only hope to look to a File Wrapper history to find out just what the novelty of the invention is, and when we do that in this case, we found the novelty. Now, we can't disregard that novelty and say that the patent is novel over the prior art that shows it, on the one hand, and then say we will disregard that prior art to make out an infringement.

I think the Patent lawyers have the bad faculty, if I may speak of that in that respect, with no disrespect to the Patent profession, of construing a claim broadly for the purpose of making out infringement and yet construing that claim specifically in order to save it from an attack by the prior art.

Now, I will spend just a few minutes on the question of commercial success; if that is a controlling factor. I don't believe that the mere sale of an article is sufficient to persuade the court on the commercial success, and I most respectfully think that that is the mind of this court, for this court recently said, upon the trial of a case before it, the case of Koch Manufacturing Company vs. Blue Star Auto Stores, Inc., your Honor 430 said there:

"There has been evidence introduced of commercial success. Of course, as you gentlemen know, I am greatly inexperienced in matters of this kind. It seems to me it is so difficult to determine what brings about commercial success, whether it is the patented idea or whether it is good salesmanship, or locality or freight rates. Any number of different things can enter into it."

Now, let us pause for the moment. Who plays these games? The public. So many things could enter into making this game a success—the element of chance, the element of suspense, the element of skill and what not, and yet, the elements of chance, skill and what not would not of themselves define patented invention over the prior art.

Now, counsel has said a good deal regarding the depositions taken in connection with the Fitch claim of invention. Those depositions were taken and the facts presented, and I think that the simplest way that I could abbreviate those for the court is this:

Plaintiff presents in this court a man who came with the Paecent Novelty Mfg. Company in October of 1936, a substantial period of time after these facts testified to took place. How could he be in a position to say what took place in August or June or July of that year of 1936?

Now if these depositions are tinted with fraud, I am the first one to want to throw them out. I am submitting these depositions to your Honor. Your Honor heard them read yesterday, and if your Honor sincerely believes the testimony in the depositions in respect to Fitch's inventorship, that he was the first to have conceived the invention, then he is entitled to be tagged as the inventor of the subject matter, not from the standpoint of getting a patent but from the standpoint of supporting the defense that Fitch and not Nelson was the inventor of the subject matter in issue.

I am prepared to answer any questions that the Court may ask, at least I will try to be prepared to answer any question that the Court may propound to me.

The Court: I haven't any.

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Closing Argument by Mr. Ooms.

Mr. Ooms: In reply, I only want to refer to that Hooker patent. That was a patent in which they had a whole row of little spring switches—

The Court: Yes, I see it.

Mr. Ooms: —and resistance element between them; so that as the ball hit one spot or another, a different ball would be projected from a little electrical propelling device and then the force with which it was projected would depend upon where on the row of switches that original ball had struck.

The Court: What happened to the original ball?

Mr. Ooms: It rolled down the table and went out of play. But the spring used there wasn't used as a resilient target at all. It was just to restore the switch.

Mr. Threedy: But it was a target, was it not, Mr. Ooms?

Mr. Ooms: The accumulation of switches was a target, yes.

Mr. Threedy: Yes, and it is a spring target.

Mr. Ooms: That is all I have to say.

675 And on, to wit, the 11th day of July, A. D. 1940 there were filed in the Clerk's office of said Court certain Depositions of John Grimm, Ellsworth M. Fitch, Martin Grimm, Thomas L. Wilder, and Sol Silverstein, in words and figures following, to wit:

686 Deposition of John Grimm.

JOHN GRIMM, being duly called as a witness in the case of Ace Patents Corporation, a corporation, plaintiff, versus Chicago Coin Machine Company, a corporation, defendant, Civil No. 16212, pursuant to the order of the United States District Court for the Northern District of Illinois, Eastern Division, (Being Exhibit 1 heretofore copied in evidence), being sworn by Antonio Faga, Notary Public in and for the County of Oneida, State of New York, being interrogated, did testify and depose as follows:

By Mr. Threedy: Q. State your name in full please?

A. My name is John Grimm.

Q. What is your age, Mr. Grimm?

A. Thirty-three.

Q. Where do you reside?

A. 1500 Mohawk Street.

Q. In what city and state?

A. Utica, New York.

Q. What is your present occupation, Mr. Grimm?

A. I am District manager for the Keystone Macaroni Company.

Q. Where is the Keystone Macaroni Company located?

A. Lebanon, Pennsylvania.

Q. How long have you been associated with this company?

A. I have been two weeks with this company.

Q. What was your occupation or profession prior to that time?

A. Before I used to be a broker, a merchandise broker.

Q. With whom?

A. Oh, four or five other companies, if it is necessary to put the names down.

Q. No, that is not necessary, if Mr. Russell wishes to ask

you on that he will. Were you ever associated with
687 the Pacent Novelty Manufacturing Company of Utica,
New York?

A. Yes, the inventors of it.

Q. What do you mean by the inventors of it, explain
in detail?

A. We worked out the idea and started the organization.

Q. What was the business of the Pacent Novelty Manu-
facturing Company?

A. It was manufacturing these amusement games.

Q. And when you said we invented the Pacent Manufac-
turing Co., who did you mean by we?

A. My brother and myself, just the inventors alone.

Q. You have used the term we—

A. My brother and myself were the inventors of it.

By Mr. Russell: I move that it be stricken out.

By Mr. Threedy: I consent to have it stricken out.

By Mr. Russell: I object to it and ask that it be stricken.

By Mr. Threedy: Yes.

By Mr. Threedy: Q. Are you now associated with the
Pacent Novelty Manufacturing Company?

A. No sir, the Pacent Novelty Manufacturing Company
is out of business now.

Q. When did you first become associated with the Pa-
cent Novelty Manufacturing Company?

A. We started the name of the Pacent Novelty Manufac-
turing Company in April some time.

Q. What year?

A. April, I think, of 1936. In April 1936 we started the
name.

Q. Is the Pacent Novelty Manufacturing Company now
in business?

A. No, out of business.

Q. When the Pacent Novelty Manufacturing Company
was in operation, what was its business?

A. It was the manufacturing of amusement games.

688 Q. What type of amusement games?

By Mr. Russell: I would like my objection noted on
the ground it is not responsive.

A. The type of machine?

Q. Did you want the question?

A. You asked me what type of game we made?

Q. Yes? I don't like to have you describe it at this time,
but state what you meant by amusement game apparatus?

A. It was a ball which would shoot up there with an object on top of the board and register in back.

Q. What was your position with the Pacent Novelty Manufacturing Company?

A. When we started over the restaurant I worked on the idea until we—then I finally got into electrical difficulty which was beyond my knowledge.

By Mr. Russell: I move that be stricken out.

By Mr. Threedy: Q. Mr. Grimm, just answer the question that I ask, don't give any other information unless it is necessary, give a complete answer—now, will you state what your position was with the Pacent Novelty Manufacturing Company?

A. The position—well, I was purchasing agent and also working in the experimental room.

Q. Do you know of one Ellsworth M. Fitch, now of Boonville, N. Y.?

A. Yes sir.

Q. How long have you known him?

A. Ever since he started with us.

Q. He was associated with the Pacent Novelty Manufacturing Co.?

A. Yes ~~sir~~.

Q. When did he first become associated with that company?

A. I think it was in the latter part of March, the latter part of March.

Q. What year?

689 A. 1936.

Q. Do you know, and if so, state, how he became associated with the Pacent Novelty Manufacturing Company?

By Mr. Russell: I object to the question.

By Mr. Threedy: What is your objection?

By Mr. Russell: Its form and the materiality and the word "how".

By Mr. Threedy: Q. Answer the question?

A. Well, we put an ad in the papers, we wanted an amateur radio mechanic because we ran into electrical difficulties, we wanted somebody to figure it out for us so we got ahold of Fitch.

By Mr. Russell: I move it be stricken out.

By Mr. Threedy: Q. State, if you know, how Mr. Fitch became associated with the Pacent Novelty Manufacturing Company?

By Mr. Russell: Same objection.

By Mr. Threedy: Q. You may repeat the answer you gave previous to that?

A. We put an ad in the papers, we wanted an amateur radio man, a mechanic, so Fitch come and answered the ad—we showed him what we wanted to develop and he was there to do it.

By Mr. Russell: I move it be stricken out.

By Mr. Threedy: Q. Just answer the question propounded to you, unless it is necessary to give a complete answer that you add something to it, what was Mr. Fitch's position with the Pacent Novelty Manufacturing Company?

A. He was an experimental engineer.

By Mr. Russell: I move the answer be stricken out as a conclusion.

By Mr. Threedy: Q. Did you employ Mr. Fitch yourself?

A. No, I didn't, not myself.

690 Q. Who did?

A. My brother was president of the company.

Q. Did you talk to Mr. Fitch regarding his coming with the Pacent Novelty Manufacturing Company?

A. I was in the office there and we decided—

By Mr. Russell: Will the answer be stricken out as not responsive.

By Mr. Threedy: Q. The answer should be yes or no. /

A. I mean by that to answer yes or no.

By Mr. Russell: Well, let him so state.

A. All right, yes.

By Mr. Threedy: Q. You mentioned that the Pacent Novelty Manufacturing Company manufactured amusement game apparatus, state, if you can, by trade name, what game apparatus was manufactured by the Pacent Novelty Manufacturing Company?

A. Bolo.

Q. Do you know of your own knowledge when the Pacent Novelty Manufacturing Company first manufactured the Bolo game you speak of?

A. It was in May we had our complete model, somewhere in May.

Q. What year?

A. 1936.

Q. Do you know when the Pacent Novelty Manufacturing Company sold the Bolo game that you speak of to the trade?

A. Yes, we sold it somewhere in the latter part of May, when we started selling it.

By Mr. Russell: 1936?

A. Yes, because I wasn't quite acquainted with the office.

By Mr. Russell: I move that be stricken out.

By Mr. Threedy: Q. Mr. Grimm, will you look at this— may I ask the reporter to mark this game apparatus for the purpose of identification, Defendant's Exhibit 2.
691 (Game apparatus marked for the purpose of identification, Defendant's Exhibit 2.)

By Mr. Threedy: I would like to have the reporter make a record that there is also as a part of this game a back board which, at the present time of showing it to this witness, is detached and not connected with the cabinet part of the machine. I am mounting the back board on the game as the witness gives it and I will ask the witness if he will look at the game and state whether or not he can identify the same?

A. Yes.

Q. What does this game, Defendant's Exhibit 2, exemplify?

A. Well, the ball—

Q. Just what it exemplifies, not how it works?

A. It is just a game of amusement.

Q. Do you see a trade name on the game?

A. Yes, in the back, "Bolo".

Q. Is this one of the Bolo games which you have heretofore testified was manufactured by the Pacent Novelty Manufacturing Company?

A. Yes sir.

Q. Have you played this game?

A. Yes sir.

Q. Do you understand the construction of the same?

A. Yes sir.

Q. Will you be kind enough to state whether or not you find in connection with this game, Defendant's Exhibit 2, a bumper or a plurality of bumper switches?

By Mr. Russell: I object to this question, there is no showing as to whether or not the witness is qualified to testify.

A. Yes.

By Mr. Threedy: Q. Now, Mr. Grimm, are you familiar with the construction and operation of this game?

692 A. Yes, I am, sir.

Q. Did you at any time engage in its development?

A. Yes sir.

Q. In that development, did you have the opportunity to become acquainted with the mechanical parts of this game?

A. Yes sir.

Q. Did you ever assemble any parts of the game?

A. Any of them?

Q. We are referring to Defendant's Exhibit 2 that I spoke of?

A. Yes.

Q. Basing your answer upon your familiarity with the game, Defendant's Exhibit 2, gained by your knowledge from assembling the game and working on its development, does this game embody what is known as a bumper switch?

A. Yes.

Q. Will you point to the bumper switch on this game?

A. It is right here (indicating.)

By Mr. Threedy: For the purpose of the record we would like to have it noted that the witness pointed to an upstanding pin, appearing in the lower row of four pins upon the board.

By Mr. Threedy: May I ask the reporter to mark this magazine entitled "Bill Board", and bearing issue date of July 18, 1936, as Defendant's Exhibit 3.

(Magazine entitled "Bill Board", dated July 18, 1936, marked for identification, Defendant's Exhibit 3.)

By Mr. Threedy: Q. I will ask you, Mr. Grimm, to look at Page 84 of the magazine that I have in my hand, entitled the Bill Board, and bearing date of July 18, 1936 thereon, and ask you to state, if you can, identify that Page?

A. Yes sir.

Q. What does that page illustrate?

693 A. The portrait of the game.

By Mr. Russell: Objection, it speaks for itself.

By Mr. Threedy: Q. Is that an advertisement—state if you know whether or not that is an advertisement by the Pacent Novelty Manufacturing Company?

A. Yes, sir.

Q. What was the purpose of this advertisement, if you know?

By Mr. Russell: Objection.

A. To show the market a new idea which we had invented.

By Mr. Russell: I ask the answer be stricken out.

By Mr. Threedy: Q. I now point out to you on this page,

statement under the heading "Fast action ball", and I read in part therefrom, "And the ball bounces from pin to pin making a score on the back board every time it hits," and I will ask you, Mr. Grimm, basing your answer upon your familiarity with the game, defendant's Exhibit 2, whether or not that describes the bumper switches that you have heretofore pointed out as being incorporated in defendant's Exhibit-2?

By Mr. Russell: Objection, and ask that the answer be stricken out.

By Mr. Threedy: What is your objection?

By Mr. Russell: The thing speaks for itself and this witness is not shown qualified.

By Mr. Threedy: He has testified he assembled the games and helped to develop them.

By Mr. Threedy: Now, I will ask the reporter to mark this defendant's Exhibit 4, for the purpose of identification, to mark it as Defendant's Exhibit 4, and incidentally, the exhibits heretofore referred to have likewise been marked for that purpose.

(Defendant's Exhibit 4 marked for identification.)

694. By Mr. Threedy: Q. Mr. Grimm, will you look at the device marked for the purpose of identification; defendant's Exhibit 4, and state whether or not you can identify it?

A. Yes.

Q. What does Exhibit 4 illustrate or represent?

By Mr. Russell: Objection, it speaks for itself and this witness is not competent to speak.

A. This represents the bumper on top of the board that we assembled on the board from underneath to come up to the top.

By Mr. Russell: I object to the use of the word "bumper" by this witness. We contend that same is not a bumper.

By Mr. Threedy: You used the term "we"—for the purpose of the record and to clarify it, would you mind stating who "we" is?

A. The staff of the Patent Novelty Manufacturing Company.

Q. And who are they?

A. My brother and the employees over there.

Q. Who are they?

A. I wouldn't know the names, I couldn't tell, there

were 250 of them from the beginning we worked on it, with Fitch.

Q. Is that Ellsworth M. Fitch you spoke of?

A. Yes, from Boonville.

Q. Are you familiar with the development leading up to the device, Exhibit 4?

A. Yes sir.

Q. Will you explain briefly the history of that development?

By Mr. Russell: Objection, witness not qualified.

A. The development—we started before we reached this point, we had a spring on there, around the pin and the pin was of metal so as it would make the contact it would short and register on the back board, and the reason why we didn't use it in our game was because we used a very heavy ball and a contact would freeze.

695 Q. Who developed the device you just described, if you know?

By Mr. Russell: I object.

A. Fitch.

By Mr. Threedy: Q. How do you know he developed that device?

A. Because he was there in the experimental room and I was there when it happened.

Q. Do you know when?

A. Yes, it was around, it was in the latter part of March.

Q. What year?

A. 1936.

Q. I wish you would describe more in detail the spring which you speak of as surrounding the pin—pointing out, particularly how that spring was supported from the board?

A. The spring was supported from the board and was around the pin.

Q. What supported the pin from the board?

A. A little post in there holding it.

Q. Are you capable of making a free hand drawing at this time of the spring which you have described as surrounding the pin on the board?

A. Yes.

By Mr. Russell: I object to the witness making such a drawing at this time.

By Mr. Threedy: Q. Will you do so?

(Witness does so.)

A. There is a spring there (indicating), then we have another one too.

Q. Show the support—indicate the support of the spring by the term “S”—just put the letter “S” on whatever constitutes the support.

(Witness does so.)

696 By Mr. Threedy: Q. Now, indicate the spring by number “I”?

A. Yes. (Witness indicates spring by number “I” on the penciled sketch).

Q. Just write number “I” on the spring?

A. Yes.

Q. And indicate the pin that you spoke of by number “2”?

A. Yes. (Witness indicates pin by number “2”).

Q. Who did you say developed that—for the purpose of interrogation, would the reporter kindly mark the sketch the witness made as defendant’s Exhibit 5.

(Sketch made by defendant marked Defendant’s Exhibit 5 for identification).

By Mr. Russell: For the purpose of the record, I notice that you have been calling these defendant’s Exhibits, whereas the intention is they be marked Exhibits for identification, so thereafter we will continue to use the word Exhibits, it being your intention to offer these at the conclusion of the examination of the witness.

By Mr. Threedy: Yes.

By Mr. Threedy: Q. Show the board on the sketch?

A. There is the board. (indicating)

Q. Mark it with a letter “B” so that it can be seen?

A. Yes. (Witness marks the sketch with a letter “B”).

Q. Now, when was such a bumper switch as indicated in defendant’s Exhibit 5 for identification developed?

A. This was in March in 1936.

Q. By whom?

A. By Fitch.

Q. And was this particular device shown in defendant’s Exhibit 5 demonstrated to you?

A. Yes sir.

697 Q. Will you explain briefly how that demonstration took place?

By Mr. Russell: Objection on the ground it is improper.

A. We had that on top of our rack which we have out there, and we were shooting balls around when we found that by those heavy balls hitting this contact, it would freeze—then we switched to another idea that we could use but then we used a light spring of the same weight.

we used a spring of this type on the post, attached to a post.

Q. Show the board also, Mr. Grimm, now, mark the board with a capital "B"?

(Witness does so.)

Q. Mark the spring support with a capital "S"?

(Witness does so.)

Q. And mark the spring as number "1"?

(Witness does so.)

By Mr. Threedy: May I have the reporter mark this sketch, for the purpose of examination and identification, as Defendant's Exhibit 6.

(Sketch marked Defendant's Exhibit 6.)

By Mr. Threedy: Q. Now, was this particular device, defendant's Exhibit 6, demonstrated to you?

A. Yes sir.

Q. How did that demonstration take place, if you know, what was done?

A. It was done on that board we have outside, on top of this board, we shot the balls the same way and we found out the balls were too heavy.

By Mr. Russell: For the purpose of the record you referred to the board outside—may we have it brought in now?

:(Board brought in.)

(Defendant's Exhibit 7 marked for identification.)

698 By Mr. Threedy: Q. Mr. Grimm, the rack you spoke of in several answers to the last question propounded to you, what rack is that?

A. That is this one. (indicating.)

By Mr. Threedy: For the purpose of the record, let the record show that the witness has pointed to defendant's Exhibit 7.

Q. Will you explain how the demonstration of this bumper switch, defendant's Exhibit 6, was explained to you in connection with this rack?

A. They put the board on top of this Exhibit, and these are our lights on the bottom.

By Mr. Threedy: For the purpose of the record, the witness is pointing to a light rack at one end of defendant's Exhibit 7.

By Mr. Threedy: Q. Now, proceed?

A. We had our batteries in the bottom and when we would shoot the ball by striking the bumper it would register here. (indicating.)

Q. Do I understand that a board was placed on the two supports at the opposite ends of the rack?

A. Yes.

Q. What position was that board—inclined or in a horizontal plane?

A. Inclined.

Q. For the purpose of what—the purpose of the inclination being what?

A. So that the ball would roll.

Q. And when the ball that rolled down the board hit the spring, defendant's Exhibit 6, what would happen?

A. It would register on the back board which is below here in this Exhibit. (indicating.)

Q. You mean that a registration would take place?

A. In the back as the bumper was struck by the ball.

699 Q. What would the spring hit of Defendant's Exhibit 6?

A. The ball would hit the spring and it would register on this back board.

Q. How would that registration take place after the ball hit the spring?

A. Through the contact, when the ball would hit the spring, the spring would contact a piece of metal which was beneath the board.

Q. Now, does defendant's Exhibit 7 show the board that you spoke of?

A. Yes.

Q. I mean that board that you spoke of that was mounted on it?

A. No.

Q. Do you know where that board is?

A. No, not at the present time.

Q. Have you made a search for it?

A. I may locate it, but I don't know where it is now.

Q. Have you recently made a search for it?

A. Yes.

Q. What was the result of that search?

A. All I found is this Exhibit.

Q. You spoke of a contact that the spring of defendant's Exhibit 6 would make, does that show the contact on the board you spoke of, if so, point it out by the letter "C"? (Witness does so.)

Q. Bring a lead line so that it will show that is what you are talking about?

(Witness places lead line on sketch.)

Q. When was the bumper switch, if you know, of the defendant's Exhibit 6 developed?

A. It was in March.

Q. What year?

A. 1936.

700 Q. Who developed that?

A. Fitch.

Q. This Mr. Fitch is the gentleman you spoke of as having been employed by the Pacent Novelty Manufacturing Company?

A. Yes sir.

Q. Do you have any part of the bumper switch that is indicated in defendant's Exhibit 6?

A. We have got the original ones that we took off the small ones, we never used, we have them in a box here, these were sort of called a mushroom spring—so we cut off one of the sides and we built the end of the spring down so the end would go through the board to make contact.

(Defendant's Exhibit 8 marked for identification.)

By Mr. Threedy: Q. I want to direct your attention to defendant's Exhibit 8, Mr. Grimm, and state whether or not these springs were taken by you out of this box and handed to me?

A. Yes.

Q. When did you give me these springs?

A. I think night before last.

Q. That would be the 25th?

A. The 24th.

Q. Now, proceed to explain the relationship of those springs, defendant's Exhibit 8, with defendant's Exhibit 6?

A. We first used this little spring, we put a nail and drove the nail down to the board and we had a little hole drilled in the board with a little metal contact on the bottom.

Q. You may refer to defendant's Exhibit 6, using numbers to indicate the contacts of the various parts you refer to?

A. We used "C", that was to make the contact. (Witness points to "C".)

Q. What made that contact?

701 A. By a ball striking the spring.

Q. After the ball struck the spring, what happened to the ball?

A. Well, the ball would go down into the gutter and register on the back board.

Q. What I mean is the ball rolling down the board there, contacting spring number "1", what would the ball do?

A. The ball would strike a spring and register 1, and strike another and register 2, on the back.

Q. What was the action of the ball on the board?

A. To bounce from spring to spring.

Q. The bumper switch that was demonstrated to you through the medium of the use of the rack, defendant's Exhibit 7?

A. Yes, sir.

Q. Did the spring have the same action as the spring of defendant's Exhibit 6?

By Mr. Russell: I object to that, witness not qualified.

By Mr. Threedy: Q. What was that action?

A. As the ball strikes the spring it would indicate on the back board.

Q. Just the spring itself, what would that do?

A. Make contact beneath.

Q. You referred in your testimony to a steel pin there, in that connection you referred to defendant's Exhibit 5—for the purpose of identification I would like to have this device marked defendant's Exhibit 9.

(Defendant's Exhibit 9, being a bowling pin, marked for identification.)

By Mr. Threedy: Q. I hand you defendant's Exhibit 9 for the purpose of identification, Mr. Grimm, and ask you if you can identify the same?

A. Yes.

Q. State what that is?

702 A. That is the object that we used on top of the board.

Q. What is that object?

A. It is a bowling pin—a steel bowling pin.

Q. Is that the bowling pin represented in defendant's Exhibit 5, is it shown there?

A. No, sir.

Q. Do you understand my question?

A. I didn't quite get you, this pin is not the same.

Q. I am asking you whether or not defendant's Exhibit 5 illustrates a steel bowling pin?

A. Yes, sir.

Q. Similar to defendant's Exhibit 9?

A. Yes, sir.

Q. Do you know where these steel bowling pins, defendant's Exhibit 9 for identification, were purchased?

A. They were purchased in New York of which I don't know the address offhand—my brother knows.

Q. Do you know the name of the company?

A. I think it was Johnson.

Q. What was your brother's name?

A. Martin, he went down to get them.

Q. And these two bumper switches illustrated in defendant's Exhibits 5 and 6, were they developed and demonstrated to you prior to the time that the Bolo game was advertised in the Billboard on July 18, 1936?

By Mr. Russell: I object to the form of the question, its materiality, and conclusion, and move the answer be stricken.

A. Oh, yes.

By Mr. Threedy: Q. Now, I would like to have this device marked for the purpose of identification, defendant's Exhibit 10.

(Defendant's Exhibit 10, being a bumper switch, marked for identification.)

703 By Mr. Threedy: Q. Mr. Grimm, will you look at defendant's Exhibit 10 and state what it represents?

A. It represents a bumper spring with the post in the center, by the ball hitting the spring makes the contact, and indicates on the back board.

Q. I advise you, Mr. Grimm, that this is a bumper switch that I recently had made and I will ask you to state whether or not it exemplifies, disregarding form and shape, the bumper switch that is shown in defendant's Exhibit 5?

By Mr. Russell: I object to the question.

A. Yes, it represents it, but we didn't have as many wire around it.

By Mr. Threedy: For the purpose of the record, this Exhibit 10 is used solely for the purpose of explanation.

By Mr. Threedy: I will ask the reporter to mark this device as defendant's Exhibit 11.

(Defendant's Exhibit 11, being bumper switch, marked for identification.)

By Mr. Threedy: And I will advise you, Mr. Grimm, that this is a device that I recently made on information furnished me, and ask you to state whether or not it exemplifies, disregarding form and the like, the sketch or

bumper switch shown in the sketch, defendant's Exhibit 6?

A. Yes, sir.

By Mr. Russell: I object to the form of the question and move the answer be stricken out.

By Mr. Threedy: I ask the stenographer to read the question. (Question read by stenographer as follows):

"Q. And I will advise you, Mr. Grimm, that is a device that I recently made on information furnished me, and ask you to state whether or not it exemplifies, disregarding form and the like, the sketch or bumper switch 704 shown in the sketch, defendant's Exhibit 6?"

By Mr. Russell: Now, I object to the form of the question and the conclusion asked for and ask that the answer be stricken.

By Mr. Threedy: For the purpose of the record, defendant's Exhibit 11 is used for explanatory purposes only.

By Mr. Threedy: I will ask that this device be marked for the purpose of identification as defendant's Exhibit 12. (Defendant's Exhibit 12 marked for identification.)

By Mr. Threedy: Q. Mr. Grimm, I hand you herewith this device marked for identification, defendant's Exhibit 12, and ask you to state whether or not you can identify it?

A. Yes.

Q. What is that device, defendant's Exhibit 12?

A. It is an object that is on top of the board to be struck by a ball and the contact was to be registefed underneath.

Q. What part of that device is struck by the ball?

A. The upper part—the bowling pin.

Q. What happens when the bowling pin is struck by the ball?

A. It registers on the back board.

Q. How is that done?

A. Through the contacts beneath.

Q. How does it operate the contact?

A. When the ball strikes the pin, it makes contact beneath the board and registers on the back board.

Q. Was this bumper switch, defendant's Exhibit 12, used in a game apparatus?

A. Yes, we tried it.

Q. When was that tried?

A. It was around March.

Q. March of what year?

A. 1936.

705 Q. Now, referring back to the springs, defendant's Exhibit 8, were those springs or springs like these incorporated in bumper switches which were demonstrated on the rack, defendant's Exhibit 7?

A. Yes, sir.

Q. When was that?

A. That was in March.

Q. What year?

A. 1936.

Q. Is there anything, Mr. Grimm, you would like to add to any of the testimony which you have thus far given in this case?

By Mr. Russell: I object to that question, the answer is yes or no.

A. Yes.

By Mr. Threedy: Q. What is it you wish to say?

By Mr. Russell: I object to the form of the question.

A. When we first started this we had it above the restaurant, above my brother's place on Bleecker Street—I had my work shop up there and I was dickering around with games, I had an idea of making a Bolo game—I wanted to get something new to get away from the holes.

Q. When you say holes, that don't mean anything?

A. The holes in the board—so, we was trying to get an object on top of the board that could be struck by the ball and register on the back board.

Q. These springs as shown in the sketch of defendant's Exhibits 5 and 6, were they used in connection with pin games?

A. Yes, they were.

By Mr. Russell: I object to the question and ask the answer be stricken.

By Mr. Threedy: What is the objection?

By Mr. Russell: He don't know whether or not they
706 were used in pin games, I will show you before I get through with his cross-examination.

By Mr. Threedy: Q. Where was this bumper switch connection in the game, the amusement game apparatus such as the Bolo game, first undertaken to be developed?

A. Over the restaurant.

Q. Where is that?

A. 969 Bleecker Street.

Q. Utica, New York?

A. Yes, sir.

Q. What was done there in connection with the development of the bumper switch?

A. Well, we have had a pin—

By Mr. Russell: I object to that on the ground it is calling for a conclusion.

A. We had a pin made, it was quite a bit larger pin—we was trying to get something so that the ball would bounce and give action on the board—and so we worked out, we tried the pin, we tried this pin—

Q. What pin are you referring to as this pin?

A. Just a straight pin on top of the board, we had the lay-out all made out, but the only difficulty, we had a lack of electrical experience...

Q. What did you do from then on, if anything?

A. From then on we went over on Lincoln Avenue.

Q. In Utica?

A. Yes.

Q. What was done there?

A. That is where all the experimental work was done, we moved most of our merchandise over there to work with and put an advertisement in the paper for an amateur radio expert.

707 Q. Who answered that?

A. Mr. Fitch.

Q. When was the advertisement placed in the paper?

A. In the early part of March, 1936.

Q. And you say Mr. Fitch answered that advertisement?

A. Yes, sir.

Q. What resulted thereafter?

A. We hired him.

Q. What were his duties then?

A. Experimental engineer.

Q. As experimental engineer, what did he develop, if anything?

By Mr. Russell: I object to the form of the question. Mr. Fitch can speak for himself.

By Mr. Threedy: Q. If you know?

A. He developed this type of spring with not as many coils on it.

By Mr. Russell: Q. Referring to what?

A. Exhibit 11, he also developed Exhibit 10.

By Mr. Threedy: Q. You mean by defendant's Exhibit 10, the bumper spring represented by defendant's Exhibit 10?

A. Yes, sir. This Exhibit 8 was our first one we worked on.

Q. Do you know where these springs came from?

A. From an old game I think, if I am not mistaken—the name was “Esquire”, made by Stoner.

Q. What time?

A. At least in 1934 or '35.

Q. Do you know to what extent the Bolo games were sold, referring to Exhibit 2?

By Mr. Russell: I object, let the records of the company speak for themselves.

708 By Mr. Threedy: Q. If you know, Mr. Grimm, to what extent the Bolo game, defendant's Exhibit 2, was sold, will you please state?

A. You want to know in a general way?

Q. Yes?

A. It had been sold through jobbers throughout the country, and, in fact, throughout the world.

Q. To what extent?

A. About eight or nine thousand of them.

Q. Now, I would like to introduce in evidence the following Exhibits concerning which this witness has testified, and identified.

By Mr. Threedy: I now offer in evidence DEFENDANT'S EXHIBIT 2 which has been identified by this witness as a Bolo game, manufactured by the Pacent Novelty Manufacturing Company.

By Mr. Russell: No objection.

By Mr. Threedy: I also offer in evidence DEFENDANT'S EXHIBIT 3, The Billboard magazine, having date, July 18, 1936—I offer that in evidence particularly only with reference to page 84 thereof.

By Mr. Russell: No objection.

By Mr. Threedy: I also offer in evidence DEFENDANT'S EXHIBIT 4, which the witness has identified as a bumper switch used in connection with the Bolo game.

By Mr. Russell: I object to that.

By Mr. Threedy: What is your objection?

By Mr. Russell: Just a general objection at this time and I will make further objection in Court.

By Mr. Threedy: I also offer in evidence the sketch made by the witness, John Grimm, marked EXHIBIT 5.

By Mr. Russell: Objection, on the ground it is not competent and was must made here at this time.

709 By Mr. Threedy: I offer in evidence sketch made by the witness, marked DEFENDANT'S EXHIBIT 6.

By Mr. Russell: Same objection.

By Mr. Threedy: (I offer in evidence the two springs attached to the tag which the witness has identified as EXHIBIT 8.

By Mr. Russell: Objection.

By Mr. Threedy: For explanatory purposes, I offer in evidence Model, DEFENDANT'S EXHIBIT 10.

By Mr. Russell: I object to Exhibit 10 as being a refined model for the purpose of misleading, whereas the models testified to by the witness, if they did exist, were a crude model.

By Mr. Threedy: I offer in evidence the steel pin which the witness identified and testified to concerning DEFENDANT'S EXHIBIT 9.

By Mr. Russell: No objection.

By Mr. Threedy: I also offer in evidence the device DEFENDANT'S EXHIBIT 11 for explanatory purposes.

By Mr. Russell: I object to that on the ground that it is a refined model, prepared by counsel, and misleading as to actual facts as the testimony of the witness shows, if any model was created it was a crude one.

By Mr. Threedy: I also offer in evidence DEFENDANT'S EXHIBIT 7, the rack which the defendant testified about.

By Mr. Russell: I object to that.

By Mr. Threedy: I offer in evidence DEFENDANT'S EXHIBIT 12, a bumper switch, which the witness identified and concerning which he testified.

By Mr. Russell: No objection.

By Mr. Threedy: We are going to take defendant's Exhibit 2 and defendant's Exhibit 7 will be retained by counsel for the defendant per the stipulation heretofore entered into. All other exhibits shall be left in the custody of the reporter, sealed and filed with the transcript of this record with the Clerk of the United States District Court for the Northern District of Illinois, Eastern Division, Chicago, to be used at the proper time and place.

By Mr. Russell: In addition, the reporter shall secure photostatic copies of any papers which she includes in her records in order that they might appear in the copies that the attorneys receive.

(Defendant's Exhibit 13 marked for identification.)

By Mr. Threedy: Q. Mr. Grimm, I hand you herewith,

defendant's Exhibit 13, marked for the purpose of identification, and ask you if you can identify the same?

A. Yes.

Q. What is that?

A. That was a test switch that we used.

Q. Explain how that was used?

A. They had that on a contact on the side of the pin, the minute the ball would hit the pin, the light would light on this Exhibit here.

By Mr. Threedy: For the purpose of the record, the witness points to the socket of Defendant's Exhibit 13.

By Mr. Threedy: Q. Do I understand, Mr. Grimm, that the Defendant's Exhibit 13, was used in connection with the testing of the various bumper switches you have testified to here?

A. Yes sir.

Q. This testing device will be offered in evidence in behalf of the defendant as Defendant's Exhibit 13.

By Mr. Russell: I object to that.

(Defendant's Exhibit 14, being a bag with a ball in it, marked for identification.)

By Mr. Threedy: Will the reporter please mark 711 this bag and ball as Defendant's Exhibit 14?

By the Reporter: I have already done so.

By Mr. Threedy: Q. Referring to this box of springs from which you have taken Defendant's Exhibit 8, Mr. Grimm, was this box with the springs in your possession?

A. Yes sir.

Q. How long did you have it in your possession?

A. I had this since—oh, some time in February I had this.

Q. What year?

A. 1936.

Q. Now, this bag marked Defendant's Exhibit 14 for identification, and the ball therein, can you identify them?

A. Yes sir.

Q. What does this represent?

A. A ball that strikes the springs.

Q. How long have you had this ball in your possession?

A. Since February.

Q. Where did you get that ball?

A. I picked it up in a store, a second hand store because at that time they didn't have any balls like that.

Q. Was this ball in the bag in the box you spoke of?

A. Yes sir.

By Mr. Threedy: For the purpose of the record I would like to have it indicated that the box witness referred to in his testimony this morning is a cigar box from which apparently cigars were taken, called "After dinner De Luxe, Seidenberg."

By the Witness: A. Well, I used this, we didn't sell them any more.

By Mr. Threedy: Q. Was this ball used in connection with the demonstration of the bumper springs to which you have testified?

A. Yes sir.

By Mr. Threedy: I offer Defendant's Exhibit 14 in evidence.

By Mr. Threedy: Q. When did those demonstrations take place, in what year?

A. In 1936, in March.

Cross-Examination by Mr. Russell.

Q. What is your education, Mr. Grimm?

A. My education, three years high.

Q. Here in Utica?

A. In Utica I put in a year nights and two years in Los Angeles.

Q. Los Angeles?

A. Yes.

Q. Just general high school work?

A. Yes.

Q. You got out of high school about when?

A. I got out of grammar school, I didn't start in high school until about eighteen.

Q. You got out of grammar school when you were about fourteen?

A. Yes.

Q. What work did you do in those four years?

A. I used to do general work of my own.

Q. From the time you were fourteen until you were eighteen, state in a general way the nature of your work?

A. I was in Los Angeles when I was fifteen, I was in charge of a packing house, I was foreman at fifteen years old.

Q. Go ahead.

A. Well, after that I went in the show business.

Q. State in a general way your experience in the show business?

- A. Well, acting, that is what you would say.
 Q. In the movies?
 A. In the movies.
 Q. In other words, you were an actor?
 A. Not an actor, wherever there was a dollar, that is what I did, I was interested in making a living.
 713. Q. And doing acting work and stage work?
 A. Yes sir.
 Q. And after eighteen you went back to high school?
 A. Night high school in Los Angeles, Polytechnic.
 Q. You went out to Los Angeles Polytechnic out there?
 A. Yes sir.
 Q. For two years?
 A. Yes.
 Q. And took what?
 A. Commercial art.
 Q. Commercial art?
 A. Yes sir.
 Q. Drawing pictures for advertising and so forth?
 A. Yes sir.
 Q. Then from there what did you do?
 A. I was in pictures.
 Q. You became a movie actor?
 A. That is it.
 Q. For how many years?
 A. I came home in 1932.
 Q. So, up to 1932 you were a movie actor?
 A. Yes sir.
 Q. Where is your home?
 A. Here in Utica.
 Q. When you came back to Utica, what did you first do?
 A. With my brother in the restaurant.
 Q. At what address?
 A. 1035 Bleecker.
 Q. What did you do?
 A. Waited table.
 Q. For how many years did you wait table?
 A. Well, I stayed with him two years.
 Q. Then where did you go?
 714. A. I was operating games.
 Q. When did you begin operating games?
 A. About the latter part of 1934.
 Q. What kind of games?
 A. Amusement games which they refer to as Pin games.
 Q. What do you mean by operating them?

A. Placing them in location.

-Q. You bought a game and paid for it and placed it in location where it was operated by the public and made some kind of a split basis with the location man?

A. Yes sir.

Q. Which is the general way these games are operated?

A. Yes sir.

Q. Up to what time did you operate games?

A. Until we started with the business.

Q. What territory did you operate in?

A. Just Utica.

Q. Just Utica?

A. Yes sir.

Q. Did you operate any other games besides Pin games?

A. No sir.

Q. About how many games did you have in operation?

A. Ten.

Q. And then you went to work for the Pacent Novelty Manufacturing Company?

By Mr. Threedy: I object to this line of interrogation, I don't think it is germane to the issue or to the testimony given by this witness on direct examination. I move that the testimony be stricken out.

By Mr. Russell: Q. About 1936 you started the Pacent Novelty Manufacturing Co.?

A. Yes sir.

715 Q. When you started the Pacent Novelty Manufacturing Company, you and a couple other fellows got together to start this company, did you not?

A. Yes.

Q. Who were they?

A. My brother.

Q. Who else?

A. Tom Morreale.

Q. Who else?

A. That is all.

Q. How about Kay?

A. He was only a worker.

Q. He was the manager?

A. He was the manager, yes.

Q. Where is he now?

A. I don't know, I would like to see him myself.

Q. Where is Mr. Morreale now?

A. I don't know.

Q. They were your associates in business, weren't they?

A. Yes sir.

Q. And they have both disappeared, haven't they?

By Mr. Threedy: The witness didn't testify to that, I object to that and move that it be stricken out.

By Mr. Russell: Q. They have disappeared, haven't they?

A. I don't know where they are at.

Q. Do you know why they are not here now?

A. No sir.

Q. And the firm of the Pacent Novelty Manufacturing Company was incorporated under the laws of what State?

A. New York State.

Q. What was your authorized capital?

716 A. I couldn't tell you that, I don't know.

Q. Who were the officers of the company?

A. My brother was president.

Q. Martin?

A. Yes, Morreale was treasurer.

Q. Morreale was treasurer?

A. Yes.

Q. And who else?

A. And Savagio, he was secretary.

Q. Where is Savagio now?

A. Well, he was in Rochester.

Q. When did you see him last?

A. Since the Pacent Novelty Manufacturing Company folded.

Q. This company was started by the gentleman referred to about when?

A. Well, it was incorporated, I believe, well, I couldn't just tell you the date because I wasn't quite familiar with it.

Q. To the best of your recollection?

A. I would say it was incorporated around May.

Q. Of 1936?

A. Yes sir.

Q. And you sold stock in that corporation to the public?

A. They sold stock.

By Mr. Threedy: That is objected to and I move that it be stricken out on the ground that it is not germane to the issue, and no proper cross-examination.

By Mr. Russell: Q. How many stockholders did you have?

A. I don't know.

By Mr. Threedy: Same objection.

By Mr. Russell: Q. How much stock was sold to the public?

A. I don't know.

By Mr. Threedy: Same objection.

717 By Mr. Russell: Q. You say all these things you discussed here, this work was done in March, two months before the company started?

A. The other work I was experimenting with, I was always dickering around, but I mean what I referred to was in the factory.

+ Q. And all that was done in March?

A. Yes sir.

Q. Then later on you incorporated a company?

A. Yes sir.

Q. And turned everything you had over to the company?

A. I had nothing to do with the office procedure on that date, what they did is their affair, I don't know.

Q. You were what in the company—vice-president?

A. Vice-president, I was everything around there, I didn't hold no office, I used to work in the experimental room and on the floor and purchase.

Q. You knew everything that was going on in the company, answer yes or no?

A. No.

Q. Now, when the company got started—you say in May—where did the company have its offices?

By Mr. Threedy: That is objected to as being misleading, unless counsel wishes to identify the company he is referring to under the corporation or the unincorporated company.

By Mr. Russell: I am referring to the Pacent Novelty Manufacturing Company, a corporation.

A. On Lincoln Avenue.

By Mr. Russell: Q. What number?

A. I think it was 1015—it was around Noyes Street.

Q. Now, counsel just raised a question—whether or not I referred to the Pacent Novelty Manufacturing Com-
718 pany Incorporated, or an unincorporated company—
you just gave the name of the corporation, now, give the name and address of the unincorporated company?

A. The name we was going to pick, one was Nova, then we couldn't use that because there was such a company,

and at the present time we had an office over the restaurant there.

Q. The restaurant where?

A. 969 Bleecker Street.

Q. You had an experimental office over the restaurant?

A. Yes, the whole floor up there.

Q. Who is the Ruben Sales Company, if you know?

By Mr. Threedy: I object to that, not proper cross-examination.

A. I know they put out amusement games, that is all, I know about them.

By Mr. Threedy: I object to the question and move that the answer be stricken out on the ground it is not germane to the issue and not proper cross-examination.

By Mr. Russell: Q. When did you first talk to Mr. Threedy about this case?

A. Night before last, I think.

Q. And you talked to him in March?

A. No, just night before last, that was the first time I had the pleasure of meeting the gentleman.

Q. Referring to Mr. Fitch, you say you put an ad in the newspaper?

A. Yes sir.

Q. What newspaper?

A. I couldn't tell you just exactly which it was, whether it was the Press or the O. D.

Q. Could you get a copy of that ad for me?

A. You see, they have changed, when they merged the Press in with the O. D. now.

Q. What paper was it at that time?

719 A. I don't know just exactly whether or not it was the Press or the O. D.

Q. In other words, you have no record of any newspaper clipping on this advertisement?

A. No sir.

Q. And can you tell me what newspaper you put the advertisement in?

A. No sir, maybe Mr. Fitch can, but I can't, I don't remember.

Q. And you can't get a copy of that ad, can you?

A. No.

Q. Since you left the Pacent Novelty Manufacturing Company, you used the word 'folded up', a little while ago, what did you mean by that?

A. It went in bankruptcy.

Q. In Court proceedings here?

A. Yes.

Q. In Federal Court here in Utica?

A. Referee.

Q. You don't know the Judge that had jurisdiction in that case?

A. De La Fleur.

Q. The records of those proceedings are available in Utica so far as you know?

A. So far as I know.

Q. When did that fold-up take place?

A. I think in the—Jesus, I don't know if it was in 1936 or 1937, I think the early part of 1937 or '36, I am not quite sure.

Q. About what month would you say of the year of either of those years?

A. I think that went into effect in April.

Q. What year?

A. 1937.

720 Q. 1937?

A. Yes.

Q. Now, when did you begin making this game called Bolo?

A. Well, let me see—do you mean in production?

Q. Just make your answer your own way?

A. This game went into production the latter part of May of 1936.

Q. 1936?

A. Yes sir.

Q. And so your experimental work was prior to May 1936?

A. My experimental work on this game was prior to 1936, yes.

Q. And the game became available for production and sale in May of 1936?

A. Yes sir.

Q. And did you sell these games through distributors, jobbers or direct?

A. The officials took care of that, that is out of my jurisdiction.

Q. And when you say they sold eight or nine thousand, you don't know whether or not that is correct?

A. I know that is the figure my brother told me.

Q. What did they sell for?

A. First they started with \$49.50, and then raised the price to \$59.50.

By Mr. Thfeedy: I object to that and move it be stricken out as not proper cross-examination and not germane to the issue.

By Mr. Russell: Q. You sold these games from May 1936 to April 1937?

A. I guess they did, I couldn't tell you that.

Q. You don't know?

A. No.

Q. And the game you sold, regardless of the time, was this the game referred to as Bolo, Defendant's Exhibit 2?

721 A. Yes sir.

Q. And no other type of game was sold by the Pacent Novelty Manufacturing Company?

A. Yes, later there was "Rack-em-up", and that last game, I can't quite remember the name—the game that did the trick—

Q. Now, the game "Rack-em-up", was that similar to Bolo?

A. It had a ball instead of the pin sticking up from the bottom of the board on a post, and when the ball strikes with the steel ball, it registers on the back board.

Q. In other words, it was similar to Bolo with the exception that the pin rested on a ball?

A. Yes sir.

Q. And you said you manufactured another game and you don't know the name?

A. No.

Q. But there was another game?

A. There is another game—I can't remember the name.

Q. When you began making "Rack-em-up", you stopped making "Bolo"?

A. No, we made "Bolo", we had a few "Bolos" for Cape Cod, Africa.

Q. And since they folded up, you have worked for who?

A. Well, I went in business for myself in the amusement business again.

Q. Selling or operating?

A. Operating.

Q. And you operate games in Utica?

A. Yes sir.

Q. How many?

A. Thirty-five.

Q. How long did you operate them?

A. Well, ever since the Pacent Novelty Manufacturing Company folded up in about May, I started operating games until last Christmas of 1938 I stopped operating.

Q. What have you been doing since?

722 A. I have been in the brokerage business, a food broker.

Q. That business you were in up to two weeks ago, and now you are selling macaroni?

A. Yes sir.

Q. For the Keystone Macaroni Company?

A. Yes sir.

Q. You are a salesman selling macaroni in a certain district?

A. I am a salesman, yes.

Q. How is the macaroni business?

A. It is bending.

Q. Now, you have produced a cigar box here, you have had that cigar box with you all those years?

A. Yes sir.

Q. And no one else has had possession of that cigar box at all?

A. No, I have had it all the time.

Q. And in that box you saved springs and nuts, bolts, screws, hooks and locks?

A. Yes sir.

Q. In other words, it is just a junk box?

A. Well, if you call it that.

Q. Did you ever see this game "Esquire" made by Stoner?

A. Yes sir.

Q. Describe the game?

A. I don't quite remember the play, I knew it had a free play, you pushed a thing and get an extra ball for a nickel, and you get it in a hole and it adds up.

Q. Don't you remember the playing surface?

A. No sir.

Q. And that game was being sold while you were operating?

A. Yes, I never had it; I happened to get those screws from it.

Q. There were quite a few on the market?

A. Yes, I am not sure it was "Esquire".

723 Q. Now, so the only game that was made by the Pacent Novelty Manufacturing Company were the games you described as "Bolo" and "Rack-em-up"?

A. And another one, yes.

Q. And those games only had the pin?

A. The other game was "Stop-em".

Q. That game was similar to "Bolo"?

A. No, "Stop-em", we had bumper springs on that.

Q. Have you got a game of "Stop-em"?

A. No.

Q. How many did you make?

A. Not many, only about 500.

Q. Do you know where there is a game of "Stop-em"?

A. Maybe you can pick one up somewhere.

Q. You say "Stop-em" had a spring on it?

A. Yes sir.

Q. Where was the spring?

A. On top of the board.

Q. But you can't tell me where one of those games are?

A. No sir.

Q. You haven't any arrangement whereby you are being paid for this testimony?

A. No.

Q. And you have no interest in a proposed patent application to be taken out on a bumper?

A. Not a bit.

Q. Have you discussed that with anybody?

A. No sir.

Q. These ideas on the pin, and so forth, and bumper, are your own ideas?

A. They have been created upstairs.

Q. And created by you?

A. Yes sir.

724 Q. And you never filed a patent application?

A. We started to file a patent application with a patent lawyer in Utica named Mr. Wilder.

Q. But you never followed through?

A. No, never went through.

Q. In other words, you abandoned the idea entirely?
—Answer yes or no.

A. We didn't abandon the idea entirely, just didn't follow through with it, that is all.

Q. Answer yes or no?

A. Just through lack of a little financial conditions.

Q. You were making money on the Pacent Novelty Manufacturing Company, weren't you, you sold 8,000 machines, didn't you?

A. I didn't make any.

Q. You say you sold 8,000 machines at \$49.50 and didn't make any money and you couldn't afford a patent?

By Mr. Threedy: I object to that on the ground it is not germane to the issue and move it be stricken out.

By Mr. Russell: Q. Referring to Exhibit 7, you say that the playing surface board has disappeared?

A. Yes, I don't know just where it is.

Q. Where did you get this exhibit from?

A. I picked this up at a company, the Empire Waste Paper Company, they bought out the bankrupt stock of the Pacent Novelty Manufacturing Company, they bought all the bankrupt stock of the Pacent.

Q. Are they still in business?

A. Yes sir, the Empire Waste Paper Company is still in business.

Q. Where are they located?

A. On Broad Street.

Q. Do you know the number?

A. No, I don't.

725 Q. And that is all they were able to give you?

A. They have got cabinets and a lot of things of a different sort, this here main thing is what we made, that is the main thing I was interested in, and I went there and they let me have it.

Redirect Examination by Mr. Threedy.

Q. On cross-examination, Mr. Grimm, you testified to a question propounded to you, that you created the "Bolo" game; are we to understand that you created the "Bolo" game in its entirety?

A. No, the only thing was just the idea of an object on top of the board—Fitch is the man that really did everything on it, Fitch put the whole thing as to what it is today, he is the man who did it.

Q. You testified, both on direct examination and cross-examination that these developments began in March, 1936?

A. Yes sir.

Q. And how long did they continue thereafter?

A. Developing? /

Q. Yes?

A. On this particular game?

Q. On the bumper switches?

A. Through the infancy of the company.

Q. Was any development work done during June of 1936?

A. Yes, they were developing there.

Q. Was Fitch the man who was there?

A. He was the only man allowed in that experimental room and myself and my brother.

Q. And according to that, this development work you testified to concerning, yourself and Fitch, began in March and continued through May and June of 1936?

A. Yes.

726

John Grimm.

Subscribed and sworn to before me on this 21st day of August, 1939.

(Seal)

Antonio Faga,
Notary Public,
Oneida County, New York.

• • • Adjournment taken at 11:50 Eastern Standard Time and adjourned until 2:15 P. M., Daylight Saving Time.

727 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation,
a corporation, Plaintiff,

vs.

Chicago Coin Machine Co.,
a corporation, Defendant.

Civil No. 16212

. At a Hearing held on Wednesday, July 26th, 1939, in the offices of Walter L. Potocki, Esq., First National Bank Building, Utica, New York, at 10 o'clock, A. M., Eastern Standard Time, before Antonio Faga, Notary

Public, duly qualified to take depositions pursuant to the Rules of Civil Procedure for the District Court of the United States.

Appearances:

For the Plaintiff—Russell, Murphy & Pearson, By John A. Russell, Esq., with Stephen Waszkiewicz, of counsel.

For the Defendant—Clarence E. Threedy, Esq., Associate Counsel, Walter Potocki, and Lawrence Marino.

Louise C. Rath, Official Supreme Court Stenographer, Oneida County Court House, Utica, New York.

728 DEPOSITION OF ELLSWORTH M. FITCH.

Ellsworth M. Fitch being duly called as a witness in the case of Ace Patents Corporation, a corporation, plaintiff, *versus* Chicago Coin Machine Company, a corporation, defendant, Civil No. 16212, pursuant to the order of the United States District Court for the Northern District of Illinois, Easter Division, (Being Exhibit 1 heretofore copied in evidence) being sworn by Antonio Faga, Notary Public in and for the County of Oneida, State of New York, being interrogated, did testify and depose as follows:

Direct Examination by Mr. Threedy.

Q. State your name in full, Mr. Fitch?

A. Ellsworth Fitch.

Q. Any middle initial?

A. M.

Q. What is your address, Mr. Fitch?

A. Schuyler Street, Boonville, New York.

Q. What is your age, Mr. Fitch?

A. Thirty-one.

Q. What is your present occupation?

A. I am working for the Fenton Electrical Company at the present time.

Q. How long have you been so employed?

A. A little over a year.

Q. What was your previous occupation?

A. An agent for the Grand Union-Tea Company.

Q. Where located?

A. Utica.

Q. State of New York?

A. Yes sir.

Q. Now, Mr. Fitch, would you give a brief but
729 detailed explanation of your educational background
and so forth?

A. Well, High school graduate, three years electrical
engineering at Clarkson College of Technology, Potsdam,
graduate of Boonville Training Class, which is a State
Teachers school, I assume you would call it—that is the
extent of my education.

Q. Were you ever associated with the Pacent Novelty
Manufacturing Company of Utica, New York?

A. Yes sir.

Q. When did you first become affiliated with that com-
pany?

A. About June 1st, 1936.

Q. Have you any way of fixing that date of June 1st,
1936?

A. Yes, I have.

Q. How?

A. I have a voucher showing my salary for the week
from that time, I think the date on that is June 6th,
and I have also a letter of recommendation in which
they state the period for which I worked for them.

Q. Have you the voucher and letter which you speak
of?

A. Yes sir.

Q. Will you produce them here?

A. Yes sir.

(Voucher and letter produced by witness.)

By Mr. Threedy: I ask the reporter to mark this docu-
ment bearing the Pacent Novelty Manufacturing Com-
pany Incorporated lettering thereon, for the purpose of
identification, defendant's Exhibit 15.

(Voucher from the Pacent Novelty Manufacturing Com-
pany marked Exhibit 15.)

By Mr. Threedy: Q. I show you defendant's Ex-
hibit 15—

By Mr. Threedy: Now, I ask the reporter to mark
letter bearing date of April 3, 1937, on the letterhead
of the Pacent Novelty Manufacturing Company, for the
purpose of identification, defendant's Exhibit 16.

730 (Letter of the Pacent Novelty Manufacturing Com-
pany marked defendant's Exhibit 16.)

By Mr. Threedy: Q. Mr. Fitch, I hand you this document marked for the purpose of identification, defendant's Exhibit 15, it has printed thereon, among other things, Pacent Novelty Manufacturing Company, Inc., and has a date of June 6, 1936, and ask you if you can identify the same?

A. Yes.

Q. Is this the voucher you spoke as being the voucher by which you fix the time you became associated with the Pacent Novelty Manufacturing Company?

A. Yes sir.

By Mr. Threedy: I offer the document in evidence, DEFENDANT'S EXHIBIT 15 concerning which the witness has testified and has identified.

By Mr. Russell: No objection.

By Mr. Threedy: Q. I hand you this letter dated April 3, 1937, marked for identification, defendant's Exhibit 16, purporting to be on the letterhead of the Pacent Novelty Manufacturing Company and signed by Martin P. Grimm, President, and ask you if you can identify the same?

A. Yes sir.

Q. Is this the letter of recommendation you spoke of as fixing the time of your employment with the Pacent Novelty Manufacturing Company in June, 1936?

A. Yes sir.

By Mr. Threedy: I offer DEFENDANT'S EXHIBIT 16 in evidence on behalf of the defendant.

By Mr. Russell: No objection.

By Mr. Threedy: Q. Now, are you acquainted with Mr. Martin Grimm of Utica, N. Y.?

731 A. Yes sir.

Q. How long have you known Mr. Martin Grimm of Utica, New York?

A. Only since I started working for the Pacent Novelty Manufacturing Company.

Q. And that was in June, 1936, is that right?

A. That is right.

Q. Do you know of your own knowledge whether or not Mr. Martin Grimm was an official or an officer of the Pacent Novelty Manufacturing Company?

A. Yes sir.

Q. Do you know what position he held?

A. He was President, to the best of my knowledge.

Q. Do you know—are you acquainted with Mr. John Grimm?

A. Yes sir.

Q. And he is the brother of Martin Grimm, is that right?

A. I have always understood so.

Q. Do you know of your own knowledge whether or not he was connected with the Pacent Novelty Manufacturing Company of Utica?

A. I do not believe he was an officer of the company, I never remember hearing that fact spoken of, but he seemed to be employed there, I know he went after shipments and kept the stock up to date.

Q. Was that during the term of your employment with the Pacent Novelty Manufacturing Company?

A. Yes.

Q. And do you know Mr. Sol Silverstein?

A. Yes sir.

Q. Do you know of your own knowledge whether or not he was associated or affiliated with the Pacent Novelty Manufacturing Company?

A. Yes sir.

Q. Do you know in what capacity, if so, state?

732 A. I never had definite knowledge as to the actual capacity, but from things I heard, I believe he sold for the company on the road.

Q. What did he sell?

A. Pin games.

Q. What was your position with them during your course of employment with the Pacent Novelty Manufacturing Company?

A. I was originally hired to work in the experimental room, and later on in the course of events, I would say, about the first of the next year, I assumed duties as assistant foreman.

Q. Where is the Pacent Novelty Manufacturing located in the city of Utica?

A. I don't believe there is any company like that today.

Q. When it was in existence, where was it located?

A. At first over on Lincoln Avenue, I don't remember the exact number of the street.

Q. Do you know the name of the street?

A. Near the corner of Sunset and Lincoln, I think it was around Noyes Street, right above there.

Q. When did you leave the Pacent Novelty Manufacturing Company?

A. About the last end of March, 1937.

Q. Will you explain briefly how you became to be affiliated with the Pacent Novelty Manufacturing Company?

A. Well, I was in Utica looking for work and I saw in the paper an advertisement for—well, employees in a new company they had in Utica, and Pacent was the name I had heard before, they made Rheostats, I thought there might be a good opportunity there, and I just went over and asked for work.

Q. Do you know in what paper this ad appeared?

A. Not definitely, I think the Observer, I believe.

Q. And that is a paper published in Utica?

A. Yes sir.

733 Q. And you got a position?

A. I did.

Q. Now, you state you were first mechanic or experimental engineer, when you were first employed as such, state what were your duties while thus employed for the Pacent Novelty Manufacturing Company?

A. My only duty during that time was to develop a contact on the game they had there they called "bolo," develop it into working order, rather, they had been trying to make a switch and had had no success with it.

Q. Will you look at defendant's Exhibit 2, and state whether or not you can identify that game, what does that game—what is that game?

A. It is the game called "Bolo."

Q. And is that the "Bolo" game that was manufactured by the Pacent Novelty Manufacturing Company?

A. It looks exactly like it.

Q. And you spoke of developing a contact, was such contact to be employed in the "Bolo" games, defendant's Exhibit 2?

A. Yes, there were to be ten of them on the board.

Q. Now, will you give us a brief but detailed history of the development of the contact by you of the "Bolo" game, defendant's Exhibit 2, starting, if you will please, from the beginning and carried on down to the conclusion?

A. Mr. Kay, the general manager, took me into the experimental room and said he believed I might be capable of helping them out. He showed me a board similar to defendant's Exhibit 2 all painted, they had on it steel pins in the shape and form of bowling pins which set in a socket. Underneath the board was a spring, these pins were connected with a long rod about one and one-half inches long on the end, and there was a brass washer held

in place about one-sixteenth of an inch from that washer was another brass piece. Their hopes were that when 734 the pin was hit by a ball it would slant the washer and hit this other piece of brass, forming a contact from which we could use an electrical impulse to run a step-up, I call it a step-up, it is like an advancing switch. The pin, as they had it, wasn't useful, sitting in a socket, it had to lift or raise on a sort of a leverage and there wasn't power enough from the ball to do that. The first thing I did was to take a small brass washer and solder it into the top of the socket to form a straight base on which the pin set, then the pin had to tilt only in the socket, but that didn't do the job we wanted to do which was to give a good contact and time enough to build up current in a solenoid—also, when the ball struck the pin, the washer being of solid metal and the pin being of very heavy metal, it would vibrate back and forth, giving a series of contacts, whereas, we only wanted one contact from each hit of the ball.

I worked on that switch considerable time. I really haven't any means of knowing the exact number of days, and could never build up current in the solenoid to give satisfactory results.

Then I tried putting a—well, I call it a catch switch on the solenoid itself, so that the first movement in the slack of the solenoid as it moved about three-eighths of an inch would catch this switch and put a direct current on the solenoid itself and continue that current until the solenoid had completed its stroke and then break over and return to its original position, irrespective of what was happening on the pin. This was a mechanical device and was very unsatisfactory.

Next, I put a relay in series with the pin switch circuit, then the pin was struck by the ball and when it was, it closed the circuit to this relay, the relay being of high resistance, didn't need a high amount of current and 735 would always work on the small amount of current I could get through this pin switch. This relay when closed, closed two switches, one of the switches being direct current back on the relay so that when the pin switch was open, as the ball rebounded from it, it still remained closed, the other switch was closed when the relay was under the influence of the current and put the current over on the solenoid coil of the step-up. In series with the switch on the relay which was holding the relay closed was another switch located at the rear of the step-up solenoid.

Q. Confine your testimony, if you will please, to the bumper contact or switch structures that lead up to the "Bolo" game.

A. This is all part of that switch.

Q. Proceed with it then?

A. This last switch I spoke of was always closed, except when the step-up plunger of the solenoid was at the rear end of a stroke. At that instant it opened the switch, allowing the current—that is a mistake—it opens the switch, breaking the current to the relay, the relay in turn, opened up and the pin switches were all set up ready for another hit from the ball—of course, this took place in parts of a second—this gave the switch a very responsive action, so responsive, in fact, that the switch as developed at that time was not useable, due to the fact it vibrated, as I mentioned before, and caused continuous adding up on the rear of the score board—but I had to find out some means whereby the ball hitting the pin could cause it to make one contact, bounce the ball back from it and assume a normal position without vibrations.

I made a good many different kinds of switches before I finally developed the actual switch wanted, being there on "Bolo" at the present time as it sits on the floor. Many of them were switches on top of the board and the company which I was working wanted for that one game switches which were hidden up under the board. However, after a while I began to think that they would have to use a switch which operated on the top of the game, on top of the board. This board is called a playing board. One of the first ones of that type of which I made a few games and kept in the shop under operating conditions for several weeks was one in which the steel pins were bolted tight to the board in position and several groups of spring wire coiled around these pins.

By Mr. Russell: I object to this line of questioning and I will interpose an objection to it all if necessary.

By Mr. Threedy: Q. Proceed along the lines you have answered—I am going to interrupt at this point but I would like to have you remember where you left off, and I hand you this sheet of paper and ask you to take this pencil and make a free hand drawing of the switch that you just testified to concerning the use of a steel pin—make a drawing of that switch as near as you can at that time recall it.

(Witness makes drawing of switch.)

By Mr. Threedy: Now, will you mark that Fig. I?

By Mr. Threedy: Q. Now, put out a lead line and a reference character indicating steel pin by the letter "S."

(Witness does so.)

Q. Now, likewise, indicate the spring by the letter "T" and a lead line.

(Witness does so.)

Q. Now, indicate the board by a letter "B" and a lead line.

(Witness does so.)

Q. Now, you have made an object in dotted lines, what does that represent?

A. The ball.

Q. Indicate that by the letter "C."

(Witness does so.)

737 Q. Now, explain the action of the ball when it strikes the spring "T"?

A. That forces the spring, "T", over against the pin, "S", and forms a contact, and as the spring is out of position, it forces the ball back again as soon as the momentum of the ball is diminished.

Q. Was such a bumper contact or switch demonstrated by you to anyone?

A. Yes.

Q. To whom?

A. Johnny Grimm, Martin Grimm, and I imagine all the officers of the company.

Q. When, approximately, did this take place, Mr. Fitch?

A. Sometime in the middle of June in the year 1936.

Q. Where did that demonstration take place?

A. In the experimental room of the Pacent Novelty Manufacturing Company.

Q. Did you explain the operation to these various parties you named?

A. Yes, very thoroughly.

Q. Briefly tell us how you did demonstrate this bumper or switch indicated as Fig. I?

A. First, I had one built up on a small board by itself. I set that at a slight slant connected up in the Bolo circuit, then we would let the ball roll against this wire and bounce back and forth on it as it did and watch the results on the score board.

Q. Now, will you look at the rack marked for identification, defendant's Exhibit 7, and state whether or not you recognize it or can you identify it?

A. That is what I used to call a jig in the experimental room, that is one we used to put the play board on top—it had in the bottom the batteries, step-up, a complete Bolo game, we just set the boards on to connect in the experimental circuit.

738 Q. Did you use this rack and playing board in the demonstration of the bumper contacts or switch in Fig. I when you demonstrated and explained the same to John and Martin Grimm?

A. I did.

Q. And for whomever you have named in June of 1936?

A. Yes, certainly—I made a whole board finally with these pins on them.

Q. I point to then what I would call the forward end of the jig, the end furthest away from me—

A. That is the rear end.

Q. And I ask you what that indicates—by that I mean there is a box like object in the opening, with a series of electrical sockets in the compartment, what does that represent?

A. It represents a score board.

Q. Was that used in connection with the demonstration to John and Martin Grimm of the bumper contact or switch, shown in Fig. I?

A. Yes sir.

Q. Where did the board rest when you made this demonstration on the rack or jig, as you have termed it, indicated as defendant's Exhibit 7?

A. Across the top.

Q. On these uprights?

A. On the felt pads.

Q. On the felt pads of Defendant's Exhibit 7?

A. Yes sir.

Q. I hand you a pin, marked defendant's Exhibit 9 for identification, and ask you if you can identify that?

A. It is very similar to the steel pins we used at that time.

Q. By that time, you mean when?

A. During the experimental period.

Q. Did that contact switch or bumper switch, Figure I, include a steel pin of this general configuration and construction?

A. Yes.

739 Will you indicate on Fig. I the circuit the circuit wires leading from the two contacts and mark them by the letters "W" and "W-Prime"?

A. "W" and "W-I"?

Q. Yes.

(Witness does so.)

Q. I call your attention to the explanatory device in evidence as defendant's Exhibit 10 for identification, and ask you to look at it and state whether or not in general it illustrates or is a reproduction, disregarding form and shape, of the bumper contact or switch of Fig. I on the sketch you have here made?

By Mr. Russell: I object to the form of the question.

A. That is very similar except as to form, this one has more turns of spring wire on it.

Q. You understand this is merely made for explanatory purposes?

A. Yes sir.

By Mr. Russell: What is that Exhibit number?

By Mr. Threedy: It is Exhibit 10.

By Mr. Threedy: Q. Make a drawing of any subsequent contacts or bumper switches that were made after the making of the bumper contact or switch shown in the sketch which you have drawn and shown in Fig. I., make a brief drawing of any subsequent one?

(Witness draws sketch.)

By Mr. Threedy: I will ask the reporter to mark this drawing of the witness as defendant's Exhibit 17 for identification, and same is offered in evidence on behalf of the defendant.

By Mr. Russell: To which objection is made.

By Mr. Threedy: Will you mark this paper in the corner, defendant's Exhibit 18.)

(Defendant's Exhibit marked Exhibit 17 for identification.)

(Defendant's Exhibit marked Exhibit 18 for identification.)

740 By Mr. Threedy: Q. Now, you take this sheet of paper, marked defendant's Exhibit 18 for identification, and this pencil and make a sketch of any subsequent contact switches or bumper switches which you developed and demonstrated as you have testified?

A. I can remember many switches, whether or not some came a little before this or a little after, I can't be sure.

Q. Just pick out any one that came subsequent to Fig. I, or thereabouts?

A. Any one I can think of?

Q. Yes? I am particularly interested, Mr. Fitch, with the spring above the board.

By Mr. Russell: Don't tell him what you are interested in, let him draw what he wants to draw.

(Witness draws sketch on sheet of paper marked Exhibit 18.)

By Mr. Threedy: Q. Now, mark that Fig. 2.

(Witness marks sketch Fig. 2.)

Q. Indicate the board by the lead line and the letter "B" and what is this element which I will ask you to indicate by the letter "A"?

A. It is a steel bowling pin.

(Witness indicates letter "B" on the sketch.)

Q. All right, indicate that as such?

A. Yes.

(Witness marks steel bowling pin with a letter "A" on the sketch.)

Q. Just proceed to explain its construction and indicate the elements by letter numbers as you explain its construction?

A. "C" is a socket on which the pin rests and moves. "D" is the spring which brings the pin back to normal after it has struck and also gives a rebound to the ball.

The wires "W" and "W-Prime", are the lead-out wires 741 for the circuit. "F" is the brace through which a wire "H" moves. This wire going through this hole changes the direction from any direction to a straight up and down movement and causes switch "J" to close when the pin is struck. (Witness indicates on sketch on sheet of paper marked defendant's Exhibit 18 all previously mentioned elements by the previously mentioned letters of the alphabet.)

By Mr. Threedy: Q. Was the bumper contact or switch of this type which is shown on Fig. 2 of defendant's Exhibit 18 demonstrated on the rack, defendant's Exhibit 7 for identification?

A. Yes sir.

(Hearing adjourned for short recess.)

• • • Hearing continued after short recess.

ELLSWORTH M. FITCH resumed the witness stand and examination continued as follows:

By Mr. Threedy: Q. When was this demonstration conducted, Mr. Fitch?

A. I can't give an exact date or anything like that.

Q. Give the approximate date?

A. Sometime in June of 1936.

By Mr. Threedy: I offer in evidence sketch made by the witness and which he has testified concerning in behalf of the defendant as DEFENDANT'S EXHIBIT 18, Fig. 2.

By Mr. Russell: I object to that.

By Mr. Threedy: I will ask the reporter to mark this sheet of paper, defendant's Exhibit 19.

(Sheet of paper marked defendant's Exhibit 19 for identification.)

By Mr. Threedy: Q. Will you proceed to make a sketch of any further developments of contact switches or bumpers?

(Witness makes sketch.)

742 By Mr. Threedy: Mark that Fig. 3—I suggest you show the circuit wires.

(Witness does so.)

By Mr. Threedy: Q. Now, describe the construction and operation of that bumper switch and use reference characters to indicate the several parts?

A. "A" is the playing board. "B" shows the spring. "C" shows the rod holding the spring above the board. "D" shows a brass washer under the board against which the segment of the spring would come in contact.

Q. Mark that part of the spring that comes in contact with the element "D"?

A. I will mark that "F".

(Witness marks paper with "F".)

Q. When the ball rolled down the board and engaged the spring, what happened?

A. It pressed the spring over and part of the spring, marked "F" moved over and contacted the washer marked "D", causing a circuit through wire "W" and "W-Prime".

Q. Was there a bumper contact or switch such as illustrated in the sketch which you have drawn and indicated as Fig. 3 on Exhibit 19 demonstrated and explained to anyone, and if so, who?

A. All these contacts were shown to the officers of the

company, I was under instructions of the company, I believe to the best of my recollection, that was shown to Johnny Grimm, Martin Grimm, and other fellows there, Kay, of course, Johnny wasn't an officer of the company, but he was a brother of Martin.

Q. When you demonstrated this bumper switch or contact, Fig. 3 of defendant's Exhibit 19, what did you do—how did you do it?

By Mr. Russell: I object to the form of the question.

By Mr. Threedy: Q. Explain how you demonstrated the bumper switch of defendant's Exhibit 19 indicated as Fig. 3 to John and Martin Grimm?

By Mr. Russell: Same objection.

A. I usually put three or four of these contacts on a board, set the board at a slant which followed the slant of the pin game as we designed it, and allowed a ball to bounce back and forth on these contacts, the series of contacts—may I make a remark—

By Mr. Threedy: Yes.

A. Well, that is an error—the contacts are never in series, they are always hooked to the score board of the pin game except when I was alone and wanted to test, I used a bulb sometimes for flashing.

Q. Did you use the jig or rack, defendant's Exhibit 7 for identification, in connection with this demonstration as shown on defendant's Exhibit 19, Fig. 3?

A. I believe I did.

Q. Was that done in the same manner as the other contacts you have spoken of?

A. Yes sir, that was the easiest way because you could get under the board and on top without trying to get into a cabinet.

Q. Explain briefly, having particular reference to sketch, Fig. 3, how that was done in connection with this jig, explain it in brief detail?

A. I took a regular Bolo playing board and put on three or four or five switches, set the board on the jig, connected it in the switches in the circuit in the Bolo circuit.

Q. With these wires on defendant's Exhibit 7?

A. Yes sir. Then I tested it by myself, then I thought I had something that would work, and as I was under instructions from Grimm and Kay, generally they would all come in before it was ever taken off the jig, we would allow the ball to bounce back and forth and watch the

score board—count the score and see how it was working.

744 Q. Approximately when did this demonstration of Fig. 3 take place?

A. Approximately the second week in June.

Q. Where?

A. In the Pacent Novelty Manufacturing Company in 1936.

Q. Who was present at that time?

A. Who was present at the time—I couldn't make an exact statement.

Q. Was Martin or John Grimm there?

A. One at least, if not both, however, they both stayed on a day or two for a while while I demonstrated.

Q. Now, I hand you herewith, defendant's Exhibit 8 marked for identification, and ask you if you can explain what the two little elements are that are attached to Exhibit 8?

A. Those are very similar to the thing that gave me my idea of using them, the ones I had had a long nail soldered in through the spring.

Q. Do you know where those wire springs were from?

A. I couldn't tell you no, yes, I think I know where the first I used came from—we had some games fixing for one of the operators in town which had on what we call mushroom springs on them, I don't know exactly anything else about them.

Q. These events you have testified to took place on or about June of 1936?

A. They must have taken place in about June.

By Mr. Russell: I object to the answer.

By Mr. Threedy: Q. Why do you say they must have, Mr. Fitch?

A. Because these games, to the best of my knowledge, came out very near or very close to the second week in July with this other contact that is now on similar to it, and all these contacts were thought of before that last contact.

Q. That is July of what year?

A. 1936—these contacts you have asked me about all 745 worked very efficiently but the company wanted different contact.

By Mr. Russell: I object to that and move the answer be stricken.

By Mr. Threedy: Q. State, if you know, why the Pacent Novelty Manufacturing Company did not adopt a contact

of the type shown in your sketch, Fig. 3 in Defendant's Exhibit 19 for identification when the "Bolo" game was built?

By Mr. Russell: I object to that.

A. I do not know why.

By Mr. Threedy: Q. Say so?

A: The boards score boards, everything to that game were made and set up ready to go all they needed was the pins working properly. They didn't have the money to put in to change over the boards which they would have to do if they used a pin of this type.

Q. That is Fig. 3 of defendant's Exhibit 19 marked for identification?

A. Yes sir.

Q. Now, do you know where the devices that represented these contact bumper switches or contacts are—where those devices are that you used in the demonstration?

A. I don't know, it has been three years.

Q. Have you made any inquiry as to where they are?

A. I have asked Johnny Grimm what he did with some things I had when I left the company, but I couldn't find Johnny Grimm.

Q. To the best of your knowledge, the bumper contact or switch illustrated in your sketch, Fig. 3, defendant's Exhibit 19 for identification, illustrates the bumper contact which you demonstrated to John and Martin Grimm in June of 1936?

By Mr. Russell: I object to that.

A. Yes.

By Mr. Threedy: This sketch indicated by the witness as Fig. 3, I now introduce in evidence as DEFENDANT'S EXHIBIT 19.

By Mr. Russell: I object to that, the model would be the best evidence.

By Mr. Threedy: Q. I hand you an explanatory device which I advise you I had made, marked defendant's Exhibit 11 for identification, and ask you to examine the same and after that examination state, disregarding the form and shape, whether or not such a device exemplifies a contact switch such as shown in defendant's Exhibit 19 for identification?

A. Disregarding form and shape, it does.

Q. Now, I am handing you a bumper contact or switch, marked defendant's Exhibit 4 for identification, and ask you if you can identify that and state what it is?

A. That is one of the switches finally used in "Bolo," one of the later model switches—the first ones had—they were more crude, not stamped out.

Q. Do you know of your own knowledge whether or not bumper switch such as defendant's Exhibit 4 for identification is incorporated in the Bolo game, defendant's Exhibit 2 for identification?

A. I don't know, in each of the games, in reference to that particular game, but it would either have this type of switch or one exactly like it except the brass pieces would be of iron.

Q. But aside from that, would it be similar to that?

A. Yes sir.

Q. I hand you herewith, an article marked defendant's Exhibit 13 for identification, and ask you if you can identify that?

A. It looks very similar to what I used to use for testing the switches.

Q. Are you in a position to state whether it is or is not what you used in testing the switches?

A. We had red wire and yellow wire of that type, but in three years I couldn't make an absolute statement.

747 Q. When was the Bolo contact, defendant's Exhibit 4 for identification, completed by you?

A. Well, some time in the first part of July, 1936.

Q. Have you any way of fixing that date?

A. Well, I got a raise in pay right after they started production on this type of switch, and I imagine I have the voucher showing the date somewhere around there.

Q. Do you have that voucher with you?

A. Yes.

By Mr. Threedy: I will ask that this voucher slip, bearing the name of the Pacent Novelty Manufacturing Company, Inc., dated July 25th, 1936, be marked for the purpose of identification as defendant's Exhibit 20, by the reporter.

(Defendant's Exhibit 20, voucher slip bearing name of the Pacent Novelty Manufacturing Company, marked for identification.)

By Mr. Threedy: Q. Mr. Fitch, I hand you herewith, this voucher slip, having printed thereon Pacent Novelty Manufacturing Company and bearing date of July 25th, 1936, and reading, "Salary in full to date, week ending July 25, amount \$20.00", marked for the purpose of identification,

defendant's Exhibit 20, and ask you if you can identify the same—if so, do so?

A. Yes, that is about \$5.00 more a week than I had been getting before that.

Q. Is this the voucher slip by which you say you fix the time you completed the bumper switch used on the "Bolo" game?

A. Yes, that is the one I figured on because one week before that it was still the same salary.

By Mr. Threedy: I will ask that this voucher slip be marked for the purpose of identification, defendant's Exhibit 21.

(Defendant's Exhibit 21 marked for identification.)

748 By Mr. Threedy: Q. And you identify this voucher slip as the one previous to defendant's Exhibit 20, is that right, referring to defendant's Exhibit 21, marked for identification?

A. Yes, sir.

Q. By these voucher slips, do we understand that you fix the time when the bumper switch in the "Bolo" game was completed by you?

A. Yes.

By Mr. Threedy: We offer in evidence in behalf of the defendant as DEFENDANT'S EXHIBITS 20 and 21, the voucher slips for whatever value they have, merely for the purpose of fixing dates.

By Mr. Russell: As to that purpose there is no objection, for other purposes, I object.

By Mr. Threedy: Q. I hand you herewith, defendant's Exhibit 12 for identification and state whether or not you can identify that, and if so, do so?

A. That is one of the switches I designed for the purpose of using in "Bolo".

Q. Is that switch represented by any of the sketches you have here made?

A. No, it is not.

Q. When was this bumper switch made by you, Mr. Fitch, approximately?

A. Well, I can't recall exactly—that was a little later than the rest of them—that was to be, I think, an improvement on the one used in the game.

Q. Do you know of your own knowledge whether or not the Pacent Novelty Manufacturing Company advertised the "Bolo" game?

A. Yes, I have seen it advertised in Billboards many times.

Q. And do you know about when?

A. I think it was advertised even before they were ready to go into production.

749 Q. When did they go into production?

A. I couldn't say for sure, but sometime, I think, in July, I cannot make a definite statement, it is too far back to remember.

Q. I hand you herewith defendant's Exhibit 3 marked for identification, entitled "Billboard Magazine", bearing date of July 18, 1936, and I call your attention to page 84, state if you can what that page represents?

A. That represents the "Bolo" game the company sold.

Q. Illustrates that, is that it?

A. That is right.

Q. Now, I call your attention to this subject matter appearing on page 84 of defendant's Exhibit 3 for identification, reading in part under the heading, "Fast Action Ball"—"The ball bounces from pin to pin, making a score of the back board every time it hits", now, basing your answer on your experience in the development of these various contact switches, state whether or not that is descriptive of these various bumper contacts, particularly those indicated in defendant's Exhibits 17, 18 and 19 marked for identification, and the bumper switch of defendant's Exhibit 4 marked for identification, and the bumper switch exemplified in the explanatory models, defendant's Exhibits 10 and 11 marked for identification?

By Mr. Russell: I object to the form of the question and to the question itself.

By Mr. Threedy: Will the stenographer please read the question?

(Question read by stenographer as follows:)

"Q. Now, I call you attention to this subject matter appearing on page 84 of defendant's Exhibit 3 for identification, reading in part under the heading, "Fast Action Ball"—"The ball bounces from pin to pin, making a score of the back board every time it hits", now, basing your

750 answer on your experience in the development of these various contact switches, state whether or not that is descriptive of these various bumper contact, particularly those indicated in defendant's Exhibits 17, 18 and 19 marked for identification, and the bumper switch of defendant's Exhibit 14 marked for identification, and the

bumper switch exemplified in the explanatory models, defendant's Exhibits 10 and 11 marked for identification?"

A. I would say that illustrated it very clearly?

Q. Now, when the ball hits the spring on the sketch you made in Fig. I., defendant's Exhibit 7 for identification, what is the relationship between the spring and the pin, marked "S"?

A. The pin "S" in this case becomes a contact.

Q. When that contact is made, is a score made on the back board of the game?

A. Yes.

Q. Now, I hand you defendant's Exhibit 14 marked for identification which is a bag with a ball in it, and ask you if you can identify that, and if so, state what it is?

A. Through the bag it feels like a ball, but I think it is smaller than the ball used in "Bolo"—that is a smaller ball than the one used in "Bolo".

Q. Does this ball represent the type of ball which was used in the demonstration of the various bumper contacts and switches you have testified to here?

A. Yes, that same type of ball.

Q. When did you leave the Pacent Novelty Manufacturing Company, Mr. Fitch, if you know?

A. As soon as they went bankrupt.

Q. Do you know when they went bankrupt?

A. Well, it must be—

Q. If you don't know, you can just state it?

A. I don't know.

751 Q. Mr. Fitch, do you happen to know where these steel pins were purchased?

A. I don't remember definitely, in fact, I don't believe I do know because we had two large bags of them when I came to work there.

By Mr. Russell: If you don't know—that is the answer.

A. All right, I don't know.

By Mr. Thredy: Q. These various demonstrations of the contact bumpers or switches, do we understand took place here in Utica, New York?

A. The demonstration and explanation of the various bumper contact switches?

Q. Yes, the demonstration and explanation of the various bumper contact switches you have testified to took place here in Utica?

A. Yes, in the experimental room of the company.

Q. On Lincoln Street?

A. On Lincoln Avenue.

Cross-Examination by Mr. Russell.

Q. After you left the Pacent Novelty Manufacturing Company, what did you do?

A. I went to Boonville for a while and then I went to Syracuse and worked for the Rex Amusement Company.

Q. What is their business?

A. They operated and sold Pin games.

Q. Operated games?

A. Operated and sold Pin games, my job was to service Pin games.

Q. You are a service man on Pin games?

A. Yes sir.

Q. You would go to their location and see if they were in working order?

752 A. Yes sir.

Q. How long were you with them?

A. Until about September of that year.

Q. What year?

A. 1937.

Q. After that where did you go?

A. I went to Boonville and recuperated from hay fever, and then I was called back to the Rex Amusement Company and worked for them in Ithaca.

Q. Until when?

A. Until about Christmas time of 1937.

Q. Then what did you do?

A. Then I came to Utica and worked for a company over here on Bleeker Street, servicing Pin games.

Q. How long did you work for them?

A. About three weeks.

Q. From there where did you go?

A. They went bust there, and I went to Remsen, I think it is.

Q. Remsen, New York?

A. Yes sir.

Q. Who did you work for there?

A. Well, a little later I got work for the Grand Union Tea Company whose headquarters are in Utica.

Q. Are you still with them?

A. No.

Q. How long did you work for them?

A. Just a year lacking one week.

Q. What did you do for them?

A. Agent.

Q. They operate wagons from house to house selling tea and coffee?

A. Yes sir.

Q. And that was your business?

A. Yes sir.

Q. Food products?

753 A. Yes sir.

Q. After you left them what did you do?

A. I recuperated from an attack of appendicitis, that is why I lost the job.

Q. After you recuperated, what did you do?

A. I went with the Fenton Electrical Company of Boonville, New York.

Q. What were your duties there?

A. My duties are to service radios, install stoves, refrigerators, and electrical appliances.

Q. How long were you with them?

A. I am still with them.

By Mr. Russell:—Now, I want the record to show that the facilities for taking these depositions are not satisfactory—crowded—heated conditions—and there is a band playing, and it makes it very difficult to think. I make this for the purpose of perhaps having an opportunity to be heard if I forget my thought by reason of unsatisfactory working conditions.

By Mr. Threedy: Counsel for the defendant has no control over the operation of the band, and the noise is not of such great extent that the parties cannot be heard, and I would like it noted on the record that the band has started playing only during the noon session and during a short time thereof, and it is at the time of this dictation, ceased playing. If counsel desires we will close the windows to exclude the noise from the room.

By Mr. Russell: I am asking that we move to another more satisfactory room or more satisfactory quarters.

By Mr. Threedy: They are not available, I am sorry.

By Mr. Russell: Let the record show that this music has gone on for about an hour.

By Mr. Marino: I don't think it is more than half an hour.

By Mr. Russell: All right, make it half an hour.

754 By Mr. Marino: It never was loud.

By Mr. Russell: Let the record show the music has begun again at 3:40 and the piece they are playing is "It Ain't What You Do, It's The Way You Do It"!

By Mr. Threedy: I wish counsel would proceed with the cross-examination of this witness as time is passing and we have all the witnesses waiting in the reception room and I would like to get them in here and get to them as quickly as possible.

Cross-Examination by Mr. Russell (Continued).

By Mr. Russell: Q. Now, when you got through High School what did you do?

A. I went to college.

Q. Then after college you went to work?

A. I went to Training class.

Q. Where?

A. The State Training Class.

Q. What did you do there?

A. I studied how to teach school.

Q. Teach school?

A. Yes sir.

Q. Did you teach?

A. Yes, three years.

Q. Where did you teach?

A. I taught in the schools of Steuben and East Floyd.

Q. What did you teach?

A. Mathematics, history, geography—if I have got to give a complete resume, I can do it.

Q. Answer the question?

A. I taught eight grades.

Q. A country school teacher?

A. Right.

Q. How many years did you teach country school?

A. Three years.

755 Q. What was the last year of that—what year was the last year you taught?

A. I think it ended in June, 1934.

Q. Where did you go after that?

A. I went to Marathon, New York.

Q. What did you do there?

A. I bought a Soda Fountain business.

Q. How long were you in that Soda Fountain business?

A. Slightly over a year, about fourteen months.

Q. What did you do after that time?

A. Are you sure you wouldn't like to know why I left that business?

By Mr. Russell: Will the stenographer please read the question?

(Question read by stenographer as follows:)

"Q. What did you do after that time?"

A. I went to Boonville and after that I got a job with the Pacent Novelty Manufacturing Company.

Q. Up to the time you came with the Pacent Novelty Manufacturing Company, you had no practical electrical experience?

A. I had practical experience in college in which I studied electrical engineering.

Q. But no place where you worked?

A. I worked for myself in two amateur radio stations which I built and operated.

Q. Which were they?

A. One was W-8DBE, and the other was W-8DZM.

Q. Amateur stations?

A. Yes sir.

Q. Of your own?

A. Yes sir.

Q. Did you ever talk with Mr. Grimm, Martin or John Grimm, about this case?

A. Yes sir.

756 Q. When did you first talk to them about it?

A. About July, 1936.

Q. About this lawsuit?

A. Oh, this lawsuit, no, I never talked to them about that.

Q. Not even this morning?

A. No sir.

Q. You never mentioned a word to them about this case?

A. I don't remember I ever talked to anybody about this case.

Q. Did you ever talk with anybody?

A. I have talked to Mr. Silverstein, Mr. Threedy and Mr. Wolff.

Q. Who is Mr. Silverstein?

A. A friend of mine.

Q. How long have you known him?

A. Since about July, 1936.

Q. When did you first talk to Mr. Threedy about this case?

A. I really couldn't recall exactly, but about April or May of this year.

Q. And where was that conversation held?

A. In Remsen, I believe.

Q. Who was present besides Mr. Threedy?

A. I don't remember anybody being present.

Q. Wasn't Mr. Grimm with you at that time?

A. No sir.

Q. You talked with Mr. Grimm on or about that time?

A. No, I haven't seen Mr. Grimm, I don't believe I have seen him since last fall some time.

Q. Now, when you went to work for this company that had this "Bolo" game developed, they had it developed at that time, did they not?

A. No sir.

Q. They had the playing boards all perfected?

A. Yes.

757 Q. And the pins all purchased?

A. Yes.

Q. In other words, they had all the fabricated materials purchased?

A. No.

Q. What didn't they have?

A. The step-ups, which are one of the most integral parts of that machine—magnets, and wooden pins which are being used at present.

Q. Now, the pin in that game was developed by you, referring to Defendant's Exhibit 2?

A. I developed that pin unit.

Q. That entire pin unit?

A. Yes sir.

Q. You say you showed them some bumper spring units but they didn't want them?

A. They didn't want to use them on the game "Bolo".

Q. Not at all?

A. They said they couldn't.

Q. Later on, you saw other companies come out with bumper spring games?

A. Yes sir.

Q. About how many different makes?

A. The first was about December of 1936.

Q. And that was while "Bolo" was still made and sold?

A. I couldn't say as to that.

Q. You were with the company to April, 1937?

A. As close as I can remember.

Q. And they started to make the "Bolo" game after you came in June of 1936?

A. Does your question mean after I came in June?

By Mr. Russell: Will the stenographer please read the question?

(Question read by stenographer as follows:)

758 "Q. And they started to make the "Bolo" game after you came in June of 1936?"

By Mr. Russell: Q. Answer yes or no?

A. I still don't know if you mean after I came in June or did they make the game in June?

Q. You came to the company in June, 1936?

A. That is right.

Q. Did they begin the manufacture of the "Bolo" game after you came to them?

A. After I came to them.

Q. How long after did they begin production?

A. I was experimenter, not general manager, the answer is it must have been five or six weeks.

Q. You were around the factory every day?

A. Yes sir.

Q. How big a factory was it?

A. During experimental time?

Q. How big a factory was it when you first began?

A. They hired about five people.

Q. And how much floor area would you say they had?

A. Three years is a long time to remember.

Q. Was it as big as this room?

A. Larger.

Q. Bigger than this entire suite?

By Mr. Threedy: I would like to inform the witness if a question that either Mr. Russell or myself propound and he does not know the answer, he is at liberty to state that he does not know.

By Mr. Russell: If he can't state the answer, he states he can't state—

Q. Was it larger than this room?

A. Yes sir.

Q. How much larger, once, twice or three times?

759 By Mr. Threedy: Let the witness answer the question you asked him.

A. I would say ten times as large as this room, and nearly that many times as wide.

By Mr. Russell: Q. How large would you say this room is?

By Mr. Threedy: I object to that on the ground it is immaterial and not germane to the issue and improper cross-examination.

By Mr. Russell: Well, we will measure the room and put it on the record, I should say it was about 8 x 10.

By Mr. Threedy: We will measure it and put it in the record.

By Mr. Russell: Q. Now, was that the size of the factory the entire time you were there?

A. No, we moved to other quarters within a year.

Q. Were the other quarters on one floor?

A. Two.

Q. How large were those floors?

A. Each floor probably was two and one-half times the size of the other factory.

By Mr. Threedy: I object to that on the ground it is not proper cross-examination, not germane to the issues and I move that the answers to the question be stricken from the record.

By Mr. Russell: For the purpose of the record, these questions are being asked because the witness says he didn't know what was going on, and I want to show that he did.

By Mr. Russell: Q. Now, the factory wasn't so large you couldn't see what was going on around there?

A. No sir.

Q. So that any production going on, you saw the lines?

A. Yes sir.

Q. When did they first begin production after you were there?

760 A. It was too long to remember, I can't remember dates.

Q. To the best of your recollection, weeks or months?

A. I would say five or six weeks after I came.

Q. What was their production when they first started in there after that first five or six weeks?

By Mr. Threedy: I object to that on the ground it is not proper cross-examination and not germane to the issue and move that it be stricken out.

A. The first week or two the production was very slow.

Q. Quite a few came back with bugs in them, didn't they?

By Mr. Threedy: I object to that.

A. Not in the pin part of the game, the bugs were in

the mechanical part of the structure—of the step-ups we bought from Guardian.

By Mr. Russell: For the purpose of the record, bugs are understood between counsel and witness as being mechanical defects.

By Mr. Russell: Q. Then for how many months did they make this "Bolo" game?

A. I am afraid I can't make a statement as to that.

Q. Up to the time you left?

A. They were in continual production of them until about December of that year, I think.

Q. Then they began making a game called "Rack-em-up" sometime during that time?

A. Yes.

Q. "Rack-em-up" was the same as "Bolo" with the exception of the pin on the ball?

A. Yes, and later a pin on the spring.

Q. Did they ever make any other kind of game?

A. "Stop-em".

Q. That was made toward the end of your employment, about the last month?

A. Yes, I couldn't recall the exact date.

761 Q. It wasn't more than two months?

A. I couldn't say.

Q. It was after you got through making "Bolo" and "Rack-em-up"?

A. No, I think "Stop-em" was on the racks with "Rack-em-up", during the latter part of production.

Q. During the latter part of February or March or April?

A. During February sometime.

Q. You don't know where you can get a game of "Stop-em", do you?

A. I really don't know unless the Rex Amusement Company of Syracuse might have one.

Q. You saw these bumper games in about December, 1936, come out from other manufacturers, did you not?

By Mr. Thredy: I object to that question, not proper cross-examination.

A. Yes.

By Mr. Russell: Q. Of various makes and manufacturers?

By Mr. Thredy: Same objection.

A. Yes.

By Mr. Russell: Q. In other words, when you went to

work for them first as the Pacent Novelty Manufacturing Company, and they explained to you what they wanted; you began to work on various ideas, didn't you?

A. I did.

Q. And you perhaps developed ten or fifteen different thoughts or ideas?

A. All of that.

Q. Trying to get some sort of action by closing a circuit on a playing board, in other words, you were attempting to create some form of action whereby a ball rolls down an inclined surface of a playing board and hits an object and would register a score?

A. Exactly.

762 Q. That would be your thought you were working on?

A. Not exactly.

Q. That was your thought on "Bolo", was just to hit something?

A. Hit it in any direction and also get a rebound.

Q. You didn't want it to hit the same pin twice?

A. We didn't mind.

Q. You stated before you wanted only one action on each pin?

A. We wanted one action from each hit of the ball.

Q. Now, showing you Defendant's Exhibit 4 for identification, which shows the pin going through a metal object on the playing surface, a coil spring underneath the playing surface, that coil spring is to hold this pin below the coil spring for contact, and also to hold the pin above the playing surface in playing position?

A. It has a dual purpose—to hold the pin in normal position and also to rebound the ball from the pin so that the ball cannot make a continuous contact.

Q. In other words, when the contact is made with the ball and the pin, it pitches over the pin slightly which causes the wire at the end of the lower part of the vertical structure to make a contact with a metal bracket you have here? (Indicating.)

A. Yes, sir.

Q. Which closes the circuit?

A. Yes, sir.

Q. And causes a score to register?

A. Yes, sir.

Q. And if it wasn't for that spring there, the pin would not be able to go back to normal position?

A. That is right.

By Mr. Threedy: I would like to have the record show that Mr. Russell was interrogating the witness regarding Defendant's Exhibit 4, marked for identification.

763 By Mr. Russell: Q. Now, Mr. Threedy has shown you some nice refined bumper models which he had made up which are Defendant's Exhibits 10 and 11 for identification, you never saw anything as nice as that before, did you, in the bumper business?

A. I made some pretty nice models myself.

Q. You haven't them, have you?

A. No, sir.

Q. They were just crude wire models, weren't they?

A. They worked fine.

By Mr. Russell: I would like that answer be stricken out as not responsive.

A. They were not so crude.

By Mr. Russell: Q. You never put them in any games of any kind?

A. Yes.

Q. In the "Stop-em" game later on?

A. I put them in the "Bolo" game in the experimental room.

Q. But you never manufactured or sold any?

A. I wasn't running the company, I manufactured them.

Q. But you never put one in operation and sold one and put it in location?

A. Wait a minute—you have asked me three or four questions.

By Mr. Russell: I withdraw the question.

Q. The Novelty Manufacturing Company never made a bumper—I withdraw that question—The "Bolo" game, being Defendant's Exhibit 2 marked for identification which I show you was manufactured and sold by the Pacent Novelty Manufacturing Company?

A. Yes, sir.

Q. And the game "Rack-em-up" was manufactured and sold by the Pacent Novelty Manufacturing Company?

A. Yes, sir.

764 Q. Which game was the same as "Bolo" except the pin had a ball at its base, is that right?

A. The switch unit had a ball in place of the bowling pin.

Q. And then later on they made a game called "Stop-em" which, you say, had a coil spring on it?

A. Yes, sir.

Q. And those are the only games they manufactured and sold?

A. Yes, sir.

Q. Now, when did you get this letter referred to as Defendant's Exhibit 16 for identification, being the letter of recommendation for you?

A. As soon as the company had notice they were in bankruptcy, I asked for a letter of recommendation so that I could look for other work.

Q. That was about the time you left?

A. I imagine the letter was dated—yes, about that time.

Q. Have you got any interest in these proceedings of any kind?

A. Oh yes.

Q. What is your interest?

A. I think I invented something—I really would like the glory and honor of having something patented.

Q. When did you get that idea?

A. Back in July of 1936.

Q. But you never filed the application for a patent?

A. I asked the company to file for me, I was financially embarrassed.

Q. And they never did?

A. I have heard they started to, evidently not.

Q. And you never signed any patent papers?

A. Not on this.

Q. And you never went after anybody to sign any for you?

A. I did—I asked Mr. Kay to put in an application for a patent for that pin.

Q. And he never did?

765 A. Evidently not.

Q. In other words, you felt you should have had a patent on that "Bolo" game, referred to as Defendant's Exhibit 2, for identification?

A. Not on the "Bolo" game, on the switch unit and the relay circuit.

Q. Now, you made various—you did various experimenting from time to time and as you experimented you showed your superiors what you were developing?

A. Yes, sir.

Q. And these various ideas, 15 or more in number, you showed them to your superiors from time to time?

A. Yes, sir.

Q. And you were prepared to go ahead with them or abandon them?

A. We didn't exactly abandon some of them—some of them we did—we had an idea of using several of the switches for other games, but were working on "Bolo" at this time.

Q. You never made games showing all the figures you have introduced in evidence, that is, manufactured and sold them?

A. Never manufactured and sold them.

Q. You intended to file a patent application on some of these subject matters you testified to here?

By Mr. Threedy: I object to that on the ground it is not proper cross-examination and not germane to the issue.

By Mr. Russell: Q. Answer yes or no?

A. Yes, sir.

Q. Have you made any arrangements with anybody in these proceedings to get ahead in these patents in any way?

A. Yes, sir.

Q. With whom?

A. Mr. Silverstein.

766 Q. And what was that arrangement?

A. He came to me this spring and asked me if I would like a patent on that switch which I made. I told him I had been interested in it and I hadn't the money to try it. He said he would like to get a patent on it and I said if you will do it and excuse me from all financial responsibility, I will be glad to sell it to you, which he said he would do.

Q. And you sold for how much?

A. I haven't sold it to him.

Q. He paid you some money, didn't he?

A. Certainly.

Q. How much did he pay you?

A. He gave me \$50.00 for signing a contract.

Q. You signed a contract with him?

A. Yes, sir.

Q. You have a typewriter at home?

A. That is right.

Q. What kind?

A. An Underwood.

Q. You typewrite on it yourself?

A. Yes, sir.

By Mr. Russell: Will the reporter please mark these papers Plaintiff's Exhibits 1 and 2—Plaintiff's Exhibit 2 marked for identification consisting of two pages.

(Plaintiff's Exhibits 1 and 2 marked for identification.)

By Mr. Russell: Q. Those were typed by you on your typewriter?

A. Yes, sir.

Q. Which documents are marked for identification, strictly—

By Mr. Threedy: This is objected to as not proper cross-examination, and I move that all questions and answers along that line be stricken out.

767 By Mr. Russell: Q. You gave these documents to Mr. Wolff, did you not?

A. No, I didn't.

By Mr. Threedy: Note the same objection, please.

By Mr. Russell: Q. You gave the contract to Mr. Wolff?

A. No, sir.

By Mr. Threedy: Same objection.

By Mr. Russell: Q. How did these leave your possession?

A. I sold them to him.

Q. To Mr. Wolff?

A. Yes, sir.

Q. And he paid you money for them?

A. He gave me \$25.00 for copies of those.

Q. These are the copies you gave him?

A. That is right.

By Mr. Threedy: Now, request is made for counsel of the defendant of counsel for the plaintiff to investigate the documents which he has interrogated the witness about over objection by counsel for the defendant on the ground they are not proper cross-examination.

By Mr. Russell: This being cross-examination and not desiring to offer the Exhibits in evidence at this time, such request is hereby refused.

By Mr. Threedy: All questions are objected to as heretofore noted as not proper cross-examination.

By Mr. Russell: It being my intention merely to have them identified by reason of the witness being here now.

Redirect Examination by Mr. Threedy.

Q. You spoke of a contract having been shown to Mr. Wolff, is that right?

768 A. Yes, sir.

Q. And when did that take place?

A. Monday night of this week.

By Mr. Threedy: These questions are not directed concerning the documents which counsel has asked the witness to identify and the objection to those questions are hereby reserved.

By Mr. Threedy: Q. Do you know who Mr. Wolff is?

A. He is a representative of the Bally Manufacturing Company.

Q. Who is the Bally Manufacturing Company?

A. Well, it is the company that got a patent on the switch.

Q. What did Mr. Wolff—where did this conversation of yours take place with Mr. Wolff?

A. At my home in Boonville.

Q. What time of the day, if you know?

A. About half past seven in the evening.

Q. What did Mr. Wolff say to you and what did you say to him?

A. Mr. Wolff said that he would like very much to see a copy of any contracts I had.

Q. What did you say to him in response to that question?

A. As I remember I didn't think it was any of his business.

Q. Then what happened or what was said?

A. He said he could make it worth while, and I asked him how much it was worth to him.

Q. What did he say?

A. He said \$25.00.

Q. Did he give you \$25.00?

A. He did.

Q. Did he say anything else?

A. Why, we talked about different things, nothing relating much to this.

Q. Did he talk to you regarding any of the subject matter of the testimony offered in this record?

769 A. He asked questions about what I was going to say in the deposition and I told him I didn't know until I heard the questions.

Q. And did you make inquiry as to why he asked these questions?

A. Yes.

Q. What did he say?

A. He said it meant his job if anything went wrong—if anything went wrong—of course, I don't know what he meant by that.

Q. Did he explain what he meant by "if anything went wrong"?

A. He didn't.

Q. And you showed him the contract?

A. No, only a copy that I typed.

Q. Do you have the original with you of that?

A. Yes, I believe I have.

Q. Will you produce it, please?

(Witness produces contract.)

By Mr. Threedy: This document handed to me by the witness, Fitch, at this time is in words and figures as follows—and I understand Mr. Fitch testifies that this is the document he showed Mr. Wolff on the date mentioned.

By Mr. Threedy: I will read it and we can see if it is the same.

By Mr. Russell: All right.

By Mr. Threedy: Plaintiff's Exhibit 1 marked for identification reads as follows:

"Memorandum of Agreement

In consideration of the sum of Fifty Dollars (\$50.00) in hand paid to Ellsworth M. Fitch by Sol Silverstein, Ellsworth M. Fitch agrees to make application for Letters Patent on his invention in a bumper switch for use in connection with amusement game apparatuses, together with such other applications as are necessary to cover any and all modified forms thereof which constitute the invention of Ellsworth M. Fitch, and to assign said application and the entire right and title in and to the invention and the patent or patents to be granted thereon to Sol Silverstein.

Upon execution and filing of the said application or applications, and the execution of said assignments, Silverstein will pay to Fitch an additional sum of Fifty Dollars (\$50.00), and upon allowance of the said application or applications, Silverstein will then pay to Fitch an additional sum of Four Hundred Dollars (\$400.00).

All expenses connected with the filing and prosecution of the said applications, including attorney's and Government fees, will be borne by Silverstein.

The applications and assignments are to be made upon request to do so by the said Silverstein.

Fitch
Silverstein

Dated: April 17, 1939."

By Mr. Russell: Mr. Threedy's witness, having produced a copy of his agreement with Mr. Silverstein, I am agreeable to offer in evidence, plaintiff's Exhibit 1 for identification, and ask that it be marked plaintiff's Exhibit 1 and received in evidence as such, subject to its being understood that the original shows the name of Mr. Fitch and Mr. Silverstein written out in full.

By Mr. Threedy: That is perfectly all right.

By Mr. Russell: Showing the name of Ellsworth M. Fitch and Sol Silverstein.

By Mr. Threedy: I offer PLAINTIFF'S EXHIBIT 1 in evidence.

By Mr. Russell: No objection.

By Mr. Threedy: Q. The question was propounded to you on cross-examination, Mr. Fitch, that I am caused
771 to believe you misunderstood—if my memory serves me correctly here, it was whether or not anyone in this proceeding had paid you any money, and I advise you that this proceeding is the Ace Patents Corporation, a corporation, plaintiff, versus The Chicago Coin Machine Manufacturing Company, defendant—now, I will ask you if the Chicago Coin Machine Manufacturing Company, defendant herein, or any of its officers had paid you any money whatsoever?

A. No sir.

Q. Have you received any money from the defendant herein, knowing that it was made at the request of the defendant to be paid to you for any assignment of patent or patent rights?

A. . . . No answer.

Q. If you don't understand I would be glad to have it read to you?

A. I would like to have it read.

(Question read by stenographer as follows:)

"Q. Have you received any money from the defendant herein, knowing that it was made at the request of the de-

fendant to be paid to you for any assignment of patent or patent rights?"

A. I really don't understand some of the words in there.

By Mr. Threedy: I will withdraw the question and I will reframe it, with your permission.

By Mr. Russell: All right.

By Mr. Threedy: Q. Did the defendant herein at any time give you any money for any patent or patent rights—the defendant being the Chicago Coin Machine Manufacturing Company?

A. No sir.

Q. Have you been paid by anyone to testify in this proceeding?

A. No sir.

Q. Do you expect to be paid by anyone to testify in this proceeding?

772 A. No, this is purely voluntary.

Q. Now, the fact that we have introduced this contract in evidence as plaintiff's Exhibit I, would that cause you to testify in any other manner than that in accordance with the oath you originally herein took?

By Mr. Russell: I object to the form of the question.

A. No.

By Mr. Threedy: Q. Now, did you, as the alleged inventor of the bumper contact shown in Fig. 1, in Fig. 2 and in Fig. 3 of defendant's Exhibits 17, 18 and 19 marked for identification, abandon at any time these bumper contact switches?

By Mr. Russell: I object to the form of the question as calling for a conclusion, the facts speak for themselves.

A. No.

Re-Cross Examination by Mr. Russell.

Q. Mr. Silverstein works for the Chicago Coin Machine Manufacturing Company, doesn't he?

A. I believe he does.

Q. Now, you said Mr. Wolff works for the Bally Manufacturing Company?

A. Yes sir.

Q. Have you ever been over to his place on Elizabeth Street?

A. Yes sir.

Q. As a matter of fact, you know he works for Fitz-Gibbons Company out of New York?

A. Yes.

Q. And that the name on the store is FitzGibbons and that he handles Bally products, Rockola products and products of other manufacturers?

A. Yes, I was introduced to Mr. Wolff in the Rex Amusement Company of Syracuse as a Bally man.

773 Q. So you don't know them?

A. No.

Ellsworth M. Fitch.

Subscribed and sworn to before me on this 9th day of August, 1939.

(Seal) Antonio Faga,
Notary Public, Oneida County, N. Y.

774 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois

Eastern Division.

Ace Patents Corporation,
a corporation,

Plaintiff,

vs.

Chicago Coin Machine Co.,
a corporation,

Defendant.

Civil No. 16,212

At a Hearing held on Wednesday, July 26th, 1939, in the offices of Walter L. Potocki, Esq., First National Bank Building, Utica, New York, at 10 o'clock, A.M., Eastern Standard Time, before Antonio Faga, Notary Public, duly qualified to take depositions pursuant to the Rules of Civil Procedure for the District Court of the United States:

Appearances:

For the Plaintiff—Russell, Murphy, & Pearson, by John A. Russell, Esq., with Stephen Waszkiewicz, of counsel.

For the Defendant—Clarence E. Threedy, Esq., associate counsel, Walter Potocki, and Lawrence Marino, Esqs.

Louise C. Rath, Official Supreme Court Stenographer, Oneida County Court House, Utica, New York.

775 DEPOSITION OF MARTIN GRIMM.

MARTIN GRIMM being duly called as a witness in the case of Ace Patents Corporation, a corporation, plaintiff, versus Chicago Coin Machine Company, a corporation, defendant, Civil No. 16,212, pursuant to the order of the United States District Court for the Northern District of Illinois, Eastern Division, (Being Exhibit 1 heretofore copied in evidence), being sworn by Antonio Faga, Notary Public in and for the County of Oneida, State of New York, being interrogated, did testify and depose as follows:

Direct Examination by Mr. Threedy.

Q. Mr. Grimm, state your name in full?

A. Martin Peter Grimm.

Q. Where do you live, Mr. Grimm?

A. 1022 Bleecker Street.

Q. What is your age?

A. Thirty-four.

Q. What is your occupation?

A. Restaurant operator.

Q. Where is your place of business?

A. 969 Bleecker Street.

Q. How long have you operated the restaurant?

A. Oh, I have been in the restaurant business and operated it for about thirteen years—not at that address though.

Q. But in Utica, New York.

A. Yes sir.

Q. At the present time you are located where?

A. 969 Bleecker.

Q. How long have you been there?

A. It will be five years this August.

Q. Were you ever associated or affiliated with the Pacent Novelty Manufacturing Company?

776 A. Yes, I was.

Q. What was the business of the Pacent Novelty Manufacturing Company—what was your affiliation with that company—what was your position?

A. They made me as president of the organization.

Q. Were you president of the company during its entire existence?

A. Yes sir.

Q. Where was the company located?

A. At Lincoln Avenue in the beginning—1410—then it was transferred to Broad Street.

Q. Utica, New York.

A. Yes sir.

Q. Now, the Pacent Novelty Manufacturing Company manufactured Pin games, is that right?

A. That is right.

Q. Do you know what Pin games were manufactured by the Pacent Novelty Manufacturing Company?

A. Yes sir.

Q. What were they?

A. "Bolo", "Rack-em-up" and "Stop-em".

Q. Do you know when "Bolo" was first manufactured by the Pacent Novelty Manufacturing Company?

A. Yes, about the first shipment, I believe, was the second week in about July, 1936.

Q. And was that game ever advertised to the trade?

A. Yes sir.

Q. Will you look at page 84 of defendant's Exhibit 3, marked for identification—

By Mr. Russell: It is in evidence.

By Mr. Threedy: I would like to have the witness identify page 84 of defendant's Exhibit 3.

Q. That is an advertisement of the "Bolo" game?

A. Yes sir.

777 Q. Will you look at defendant's Exhibit 2 and state whether or not that is the "Bolo" game manufactured by the Pacent Novelty Manufacturing Company?

A. That is.

Q. How do you fix the time of manufacture, of the defendant's Exhibit 2, by the Pacent Novelty Manufacturing Company?

A. You mean when they started?

Q. That is right?

A. When they started the company?

Q. No, when they started to manufacture "Bolo"?

A. They really started to manufacture "Bolo" for selling, that was in July of that year.

Q. 1936?

A. Yes sir.

Q. How do you fix that time?

A. Just about when?

Q. Yes?

A. I couldn't tell just what date of the month, but I know it was then.

Q. How do you know it was July of 1936?

A. Well, really it was just before this. (indicating)

Q. Before this advertisement?

A. I mean after this we advertised, then we really made them.

Q. And that Exhibit bears date of July 18, 1936, so that it would be after that date?

A. Well, I think a week or two was the first shipment.

Q. Do you know who developed the bumper contact or switch on "Bolo"?

By Mr. Russell: I object to that.

A. Yes.

By Mr. Russell: I move the answer be stricken out.

By Mr. Threedy: Q. Who developed the bumper contact of "Bolo," if you know?

778 By Mr. Russell: Another objection.

A. Mr. Fitch.

By Mr. Threedy: Q. And was he associated with the Pacent Novelty Manufacturing Company?

A. Yes sir.

Q. In what capacity?

A. As an engineer.

Q. Do you know when?

A. I think he came in the beginning of June.

Q. What year?

A. 1936.

Q. And do you know how he became associated with the Pacent Novelty Manufacturing Company?

A. Yes.

Q. State how?

A. We advertised for some man that understands that business, some radio man, he was one of the boys that come down there and we picked him up.

Q. Where was that advertisement?

A. I guess in the local paper.

Q. Do you know what paper?

A. A local paper.

Q. Did Mr. Fitch demonstrate to you, during his course of employment with the Pacent Novelty Manufacturing Company, bumper contacts or switches?

A. Yes, practically all of them.

Q. Can you describe any one or more that he demonstrated?

A. I seen them, I can't tell just which ones, he had a flock he was trying out to get the right kind to fit the picture.

Q. When did he make this demonstration to you?

A. Well, it was in the months of June and July; 779 in the middle between June or July, the first two weeks in July and the last two in June.

Q. What year?

A. 1936.

Q. Have you any way you could fix the approximate date there, I mean by that, have you any way of fixing that it was June or July of 1936?

A. It was just about in there because we were trying them out to satisfy the type of machine we wanted for ourselves.

Q. Was it prior to the date of defendant's Exhibit 3?

A. It was just about that time, yes.

Q. Now, show you bumper switch, marked defendant's Exhibit 4 for identification, and ask you if you can state what that is and if so, do so.

A. This is one of the types set on that board, this is the final type we made.

Q. Referring to defendant's Exhibit 2 for identification?

A. Yes sir.

Q. Do you know when that was made?

A. This was made when we were beginning selling the machines?

Q. That was when?

A. That was, I believe, after this advertisement.

Q. Referring to defendant's Exhibit 3?

A. Yes sir.

Q. Now, I hand you herewith defendant's Exhibit 8 marked for identification, and I will ask you if you can state what they are?

A. This was one of the types we figured on too, I remember this all right—this is a spring, we had one of the types to make, to hit the ball then register to make a contact, we have given up the steel pin idea in the beginning because we didn't have very much luck—we tried to get away from the pin—then we used this spring to set 780 up ten of these to make a contact as ball pins, when the ball hit this it would cause a contact with this little pin. (indicating)

Q. When was that made?

A. Before we made that. (indicating)

Q. When was that?

A. Prior to this.

By Mr. Threedy: The witness refers to defendant's Exhibit 3 and Exhibit 2 when he said prior to this.

By the Witness: A. This was in the experimental stage to get the right thing.

By Mr. Threedy: Q. Where was that developed?

A. On Lincoln Avenue.

Q. By whom?

A. Mr. Fitch?

Q. When you say on Lincoln Avenue, you mean where?

A. 1410.

Q. In the plant of the Pacent Novelty Manufacturing Company?

A. Yes.

Q. And that was prior to the issuance of the Billboard of July 18, 1936?

A. Right.

Q. Will you look at defendant's Exhibit 7 marked for identification and state if you can what that is?

A. That is our work board—we have tried all different gadgets right on top of that from this part. (indicating)

Q. On top of the pads?

A. Yes, to get the reaction on the bottom of the board—to see how our contacts work. This was one of the first we tried.

Q. Referring to defendant's Exhibit 8 for identification?

A. Yes.

781 Q. Do you know where these springs of defendant's Exhibit 4 for identification originated from?

A. I couldn't tell you, we bought up a lot of springs from New York from a man named Swartz who manufactured boards for games or they were taken from a second-hand game.

Q. Will you look at defendant's Exhibit 19 for identification and state whether or not you can recognize that as one of the bumper contacts or switches developed by Mr. Fitch?

A. Yes.

By Mr. Russell: I object to that and move to strike it out.

By Mr. Threedy: Q. Explain what defendant's Exhibit 19 marked for identification illustrates?

By Mr. Russell: I object to that on the ground that the drawing speaks for itself.

By Mr. Threedy: Q. Can you identify defendant's Exhibit 19 marked for identification, Mr. Grimm?

A. Yes, it is a spring.

By Mr. Russell: I object to that, this witness is not qualified to state.

By the Witness: A. It is a spring that is held by a nail and put into a hole in the board touching a little steel which makes a contact to register on the board.

Q. Who designed or developed that?

A. Mr. Fitch.

Q. Did he explain that to you?

A. Yes sir.

Q. Do you know whether or not he explained it to your brother, John?

A. We were both together.

782 Q. Was that during the period of time you spoke of?

A. Yes, just before this time.

Q. Referring to defendant's Exhibit 3?

A. Yes sir.

Q. Will you look at defendant's Exhibit 17 marked for identification and state whether or not you can identify that, and state if you can what it illustrates?

A. These are springs around the pin—there is the pin. (indicating)

Q. Is that a wooden or a steel pin?

A. Steel.

Q. What does "T" represent?

A. Well, I know it represents a contact, if it hits against the steel, that is the spring.

Q. Was that contact bumper switch demonstrated to you by Mr. Fitch in your presence?

A. Yes, when we were there.

Q. What do you mean by we?

A. My brother, Mr. Fitch and I.

Q. Was that during the period of time prior to July 18, 1936?

A. Yes sir.

Q. Now, I show you defendant's Exhibit 9 marked for identification and ask you if you can identify that?

A. Yes.

Q. What does that represent?

A. This is a steel pin we made for the purpose of our

game, and it was bought from Johnson in Brooklyn, I had my manager with me.

Q. When did you buy that?

A. In March, 1936.

Q. And the steel pin was embodied in a game?

A. Yes sir.

Q. Is that steel pin similar to the pin in defendant's Exhibit 17 for identification?

783 A. Yes sir.

Cross-Examination by Mr. Russell.

Q. How old are you?

A. Thirty-four.

Q. What is your education?

A. How much did I have? That doesn't refer to this switch, does it?

Q. It will when I get through.

A. Grammar school.

Q. What else?

A. That is all.

Q. After you finished grammar school what did you do?

A. I went to work.

Q. What did you work at?

A. I worked in the meat business.

Q. How long were you in the meat business?

A. About eight or nine years.

Q. Then what business did you go into?

A. Well, then I have been doing a little selling.

Q. What kind of selling?

A. Tobacco.

Q. Any other business in which you went before you were in the Pacent Novelty Manufacturing Company?

A. Oh yes, I have been in the restaurant at the present time.

Q. How long have you been in the restaurant business?

A. Now, about 12 or 13 years.

Q. Still in it?

A. Yes sir.

Q. Any other business mixed up in it?

A. No sir.

Q. How about that oil well in Rome?

A. I wasn't mixed up in that much, just somebody
784 wanted us to buy some stock in it.

Q. You were selling stock in that?

By Mr. Threedy: I object to this line of questioning on the ground it is not germane to the issue and not proper cross-examination and move that the questions and answers be stricken out.

By Mr. Russell: Q. You were selling stock in an oil company in Rome?

By Mr. Threedy: Same objection.

By Mr. Russell: Q. Answer yes or no?

A. Listen, let's talk about the switch and get it over with!

Q. You don't want to talk about that oil?

A. I don't know anything about the oil well.

Q. You were selling stock in it, weren't you?

A. I wasn't, I don't know anything about it.

Q. Now, you always advertised before you put out a game, didn't you?

A. Yes.

Q. A couple of weeks in advance before you put "Bolo" out?

A. Yes sir.

Q. And in addition to the advertisements in Billboard, you did a lot of circular advertising, didn't you, jobbers, distributors and operators?

A. I think so.

Q. Have you got any of it around?

A. Gee, that, I don't know.

Q. You had some other game called "Rack-em-up"?

A. Yes sir.

Q. And "Stop-em"?

A. Yes sir.

By Mr. Threedy: I object to that on the ground it is improper cross-examination and not germane to the issue and move to have the questions and answers 785 be stricken out, and I would like to make the objection general for simplicity sake.

By Mr. Russell: Q. Before you advertised "Bolo", you advertised in Billboard and other publication of other kinds—that is, before you manufactured "Bolo"?

A. I believe so.

Q. What other publications?

A. I believe there was one put in the Automatic Age—I can't remember, see.

Q. Now, on "Rack-em-up", you advertised in various publications on "Rack-em-up"?

A. Maybe in Billboard, but I don't remember anything else.

Q. How about advertising on "Stop-em"?

A. I don't remember that much, if it was advertised it was before the game was put out some two or three weeks, that is the rule.

Q. Now, have you any interest of any kind in the outcome of these proceedings?

A. Not yet.

Q. What do you expect?

A. Nothing yet.

Q. How about tomorrow?

A. I don't know about tomorrow.

Q. But you do expect something?

A. Well, I don't know anything yet.

Q. You expect to get your answer from that?

A. I don't know.

Q. But you do expect an answer?

A. Maybe good will.

Q. Whose good will?

A. Sol Silverstein's.

786 Q. And he is an employee of the Chicago Coin Manufacturing Machine Company?

A. That is what he says.

Q. He sells their products?

A. That is right.

Q. Did he offer you an interest in this patent in case you get one?

A. Not yet.

Q. But he told you you would get one after these proceedings?

A. Not yet.

Q. But soon?

A. I don't know.

Q. You hope?

A. We all hope for the better.

Q. Have you signed any papers with Silverstein?

A. No papers with anybody.

Q. How much has he promised you?

A. Not a thing.

Q. What interest in the patent has he promised you?

A. Nothing.

Q. But you do say you expect it?

A. Well, we haven't made no arrangements of any kind yet.

Q. Mr. Potocki is your attorney is he not?

A. What do you mean?

Q. Mr. Potocki represents you and your brother John in various matters?

A. Yes.

Q. You and John have been mixed up in a lot of litigation, haven't you?

By Mr. Threedy: I object to that and move the question and answer be stricken out—I specifically object to that on the ground it is highly improper cross-examination and ask that it be stricken from the record.

787 A. No, we have Court actions sometimes but not lots of litigation, not to amount to anything.

By Mr. Threedy: Same objection, and with permission of counsel I would like to have that objection apply to any questions along these lines.

By Mr. Russell: Q. You don't know where Mr. Kay is?

A. No.

Q. You don't know where Morriale is?

A. No sir.

By Mr. Threedy: Same objection.

By Mr. Russell: Q. They are officers of the company who might be material witnesses if they could be located—you don't know why they are not here, do you?

By Mr. Threedy: I object to that specifically and generally on the ground it is improper cross-examination.

By Mr. Russell: Q. The Pacent Novelty Manufacturing Company went into bankruptcy, as you said before, and who purchased their assets?

A. It was turned over to Mr. Hahn, the receiver.

Q. The receiver?

A. Yes, he sold them under the hammer to somebody, that, I don't know anything about, when they went caflunk, I was out of it.

By Mr. Threedy: I object to this on the ground it is improper cross-examination, the records of the Court are the best evidence.

By Mr. Russell: Q. You just said when it went "caflunk"—what did you mean by the word "caflunk"?

A. When it was bankrupt, I was out.

Q. You had no further interest?

A. Nothing.

788 Q. You didn't care whether or not the creditors or stockholders got anything?

By Mr. Threedy: Same objection.

A. I didn't own anything.

By Mr. Russell: Q. How long have you known Mr. Threedy?

A. Once or twice, that is all I met him.

Q. How about last April?

A. He come to see me once.

Q. You and John?

A. Yes.

Q. What talk did you have with Mr. Threedy?

A. Mr. Silverstein asked us to come and do him a favor by testifying in this case, and we agreed we would.

Q. Did he tell you what to say?

A. Just tell the truth.

Q. Do you know Mr. Wolff?

A. Yes.

Q. How long have you known him?

A. Not long, I met him two or three times.

Q. You and John were at his office this morning?

By Mr. Threedy: I object to this on the ground it is improper cross-examination and not germane to the issues in this proceeding:

A. John had to drop in in reference to a machine.

By Mr. Russell: Q. You were both there this morning, you and John, in Mr. Wolff's office this morning?

A. Yes sir.

By Mr. Threedy: No further examination.

Martin P. Grimm.

789 Subscribed and sworn to before me on this 16th day of August, 1939.

(Seal)

Antonio Fagn,
Notary Public, Oneida County, N. Y.

790 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation,
a corporation,

Plaintiff,

vs.

Chicago Coin Machine Co.,
a corporation,

Defendant.

Civil No. 16,212

At a hearing held on Wednesday, July 26th, 1939, in the offices of Walter L. Potocki, Esq., First National Bank Building, Utica, New York, at 10 o'clock, A. M., Eastern Standard Time, before Antonio Faga, Notary Public, duly qualified to take depositions pursuant to the Rules of Civil Procedure for the District Court of the United States.

Appearances:

For the plaintiff—Russell, Murphy & Pearson, by John A. Russell, Esq., with Stephen Waszkiewicz, of counsel.

For the defendant—Clarence E. Threedy, Esq., Associate counsel, Walter Potocki, and Lawrence Marino, Esqs.

Lousie C. Rath, Official Supreme Court Stenographer Oneida County Court House, Utica, New York.

791 DEPOSITION OF THOMAS L. WILDER.

THOMAS L. WILDER being duly called as a witness in the case of Ace Patents Corporation, a corporation, plaintiff, *versus* Chicago Coin Machine Company, a corporation, defendant, Civil No. 16,212, pursuant to the order of the United States District Court for the Northern District of Illinois, Eastern Division, (being Exhibit 1 heretofore copied in evidence), being sworn by Antonio Faga, Notary Public in, and for the County of Oneida,

State of New York, being interrogated, did testify and depose as follows:

Direct Examination by Mr. Threedy.

Q. State your name in full, please?

A. Thomas L. Wilder.

Q. What is your address, Mr. Wilder?

A. 1533 Taylor Avenue, Utica, New York.

Q. That is your home address?

A. Yes sir.

Q. What is your business address?

A. 302 Mayo Building, Utica, New York.

Q. What is your profession or occupation?

A. Lawyer.

Q. Both these addresses you gave are in Utica, New York?

A. Yes sir.

Q. Do you specialize in any particular branch of the legal profession?

A. Patents and trade marks.

Q. How long have you been specializing in patents and trade marks?

A. Since about 1910.

Q. You are a member of the Bar of the State of New York?

A. Yes sir.

792 Q. How long have you been a member of the Bar of the State of New York?

A. Since 1909.

Q. And you are registered in the United States Patent Office?

A. Yes sir.

Q. As a Patent Attorney?

A. Yes sir.

Q. How long have you been registered there?

A. About since 1910.

Q. What is your age?

A. Over forty-five.

Q. Do you know of the Patent Novelty Manufacturing Company of Utica, New York?

A. I did, yes.

Q. And where are they located or where was it located?

A. The last business address, I think, was on Broad Street in Utica, New York.

Q. Did you have any occasion to be engaged as a Patent lawyer for the Patent Novelty Manufacturing Company?

A. I did.

Q. And when were you thus engaged?

A. I think August, on or about August 14th, 1936, they called me to their place of business which was at that time at 1410 Lincoln Avenue, Utica, New York.

Q. Who called you there, Mr. Wilder?

A. I think Mr. Raymond Kay, the manager.

Q. What did you do, if anything?

A. I had a consultation with him at that time at their plant relative to taking out a patent on a "Bolo" game and also registering a trade mark "Bolo".

Q. Have you any way of fixing the time when this conference took place?

793 A. I have some certain sketches I made at that time.

Q. Have you them here?

A. I have.

Q. Will you produce them, please?

(Mr. Wilder produces sketches from portfolio.)

By Mr. Threedy: I would like to have the reporter mark this sketch, Defendant's Exhibit 22 for identification.

(Defendant's Exhibit 22 marked for identification, being sketch.)

By Mr. Threedy: Q. I hand you this sketch, Defendant's Exhibit 22 marked for identification and ask you to state what that is, if you will, please?

A. Exhibit 22 shows a sketch of a wooden pin mounted on the surface of a "Bolo" game and having depending therefrom a wire which extends down.

Q. Would you mind taking a pencil there and by reference letters, put reference letters on them as you indicate them?

A. This shows the wooden pin, "5", on the upper surface, "11", of a Bolo game, a wire "7" depends from the pin "5" down through an aperture in a bracket "10", a coil, conical spring "6" is mounted around the wire "7" adjacent to the under surface, "11" of the "Bolo" game. The sketch also shows wire connections to a relay and from the relay to a solenoid and wires.

Q. Indicate the solenoid by a letter "S"?

(Witness indicates solenoid by letter "S".)

A. "S" and the wires "T" to a selective registering device indicated by marks "X". I will put it, there is also

in the circuit a battery "Y" which I am indicating by "Y".

Q. Now, you have described the illustration of the sketch marked Defendant's Exhibit 22 for identification, can you describe its operation, if so, do so, using reference letters wherever possible?

794 A. The wooden pin "5" when struck by the Bolo ball is tilted thereby tilting the wire "7" to make an electric contact through the bracket "10" and the electrical circuit shown in the drawing, the conical coil spring "6" functions to restore the wooden pin "5" to its normal upright position.

Q. Then I understand, Mr. Wilder, that the conical spring "6" has a dual function, is that right?

A. Yes sir.

Q. What is that dual function?

A. To restore the wooden pin "5" to its normal upright position and to restore the wire "7" to its open position, it also causes the ball to rebound.

Q. After it strikes the wooden pin "5"?

A. Yes.

Q. This sketch is dated August 14th, 1936, did you make this sketch?

A. I think I made all the sketch except the wiring circuit shown.

Q. Was that made on the date this sketch bears, August 14th, 1936?

A. It was.

Q. Was this sketch made from an actual Bolo game?

A. Yes, it was.

Q. Will you look at Defendant's Exhibit 2 for identification, which is this game I point to, and state whether or not that brings to your mind whether or not that illustrates a Bolo game from which Exhibit 22 marked for identification was made, with reference particularly to the bumper contact?

A. Yes, except as I recall, the game was in the process of being built, it was not a completed model they showed me.

Q. I call your attention to Defendant's Exhibit 4 marked for identification and ask you if you can recognize that bumper contact?

795 A. I identify this as one of the bumper contacts.

Q. Is that for a Bolo game?

A. That is for a Bolo game, yes.

Q. That is a game like Defendant's Exhibit 2.

A. Yes sir.

Q. Does the function and operation of Defendant's Exhibit 4 marked for identification, does that correspond to the function and operation of the bumper contact or switch shown in the sketch, Defendant's Exhibit 22?

A. I think it does.

By Mr. Threedy: I offer in evidence EXHIBIT 22 of the defendant, marked for identification, illustrating the Bolo contact switch.

By Mr. Russell: I object to that.

By Mr. Threedy: Q. You spoke of another visit, did you?

A. Yes, along in the fall, I think, of that year—I think I also paid another.

Q. Have you any way to definitely fix in mind whether or not you did make such a visit?

A. Here is a sketch here dated December 11, 1936 which refreshes my recollection that I had a consultation at that time.

By Mr. Threedy: I will ask the reporter to mark the sketch Exhibit 23, Defendant's Exhibit 23 for identification.)

(Sketch marked Exhibit 23 for identification.)

By Mr. Threedy: Q. Did you make this sketch, Defendant's Exhibit 23 marked for identification, Mr. Wilder?

A. No, I don't think I did.

Q. Was that sketch made in your presence?

A. I think it was, yes.

Q. By whom was it made?

A. I think by Raymond Kay.

By Mr. Russell: I object to any reference to the 796 Exhibit for identification marked Defendant's Exhibit 23 on the ground that the witness does not know who made it.

By Mr. Threedy: Q. Do you testify that the sketch defendant's Exhibit 23 for identification was made in your presence on the date it bears, December 11, 1936?

A. Yes sir.

Q. You definitely know that to be a fact?

A. Yes sir.

Q. Why?

A. Otherwise, I wouldn't have dated it.

Q. Is that in your handwriting?

A. Yes sir.

Q. Was that placed on this sketch, December 11th, 1936?

A. Yes sir.

Q. Whose initials are those?

A. Those are my initials.

Q. Were those initials placed on there by you on that date, December 11th, 1936?

A. Yes sir.

Q. What does that illustrate?

A. It shows a Bolon pin having a contact wire depending therefrom into a casing, and the casing contains a coil spring about the depending wire.

Q. Fix that particular view by Fig. 1, Fig. 2 and Fig. 3?

A. It shows a Bolo game, Fig. 1, A casing there below, Fig. 2. A disc 3-3, within said casing "2," a depending contact wire, "4", a coil spring "5," below said disc "3," and contact members "6-6" below surface "7."

Q. What is the function of spring "5"?

A. The function of "5" is to restore the bowling pin "1" to normal position and also to cause a rebound of the bowling ball.

797 Q. Describe Fig. 2?

A. Fig. 2 shows a fragmentary view of the base I.

Q. That would be a board?

A. Yes, of the Bolo game, a ball "2" thereon, a contact wire "3" and electric contact "4-4."

Q. What happens, what is the relationship between the ball "2" and this member "3" when the ball engages?

A. It actuates the member "3" and causes an electrical contact between members "4-4."

Q. What about Fig. 3?

A. Fig. 3 shows a straight pin "1" with a disc "2-2" mounted thereon and below disc "2-2" a coil conical spring "3," surrounded by casing "4" and below electrical contact members "5-5."

Q. What is the function of spring "3" on Fig. 3?

A. The function of spring "3" on Fig. 3 is to restore the bowling pin to normal position and cause a rebound of the ball.

By Mr. Threedy: This sketch, defendant's Exhibit 23 marked for identification is offered in evidence on behalf of the defendant.

By Mr. Russell: To which objection is made.

By Mr. Threedy: Q. Did you make any other sketches

at this present conference or any other conference you had with the Pacent Novelty Manufacturing Company?

A. I made a sketch dated August 15, 1936 showing a wooden pin "5," a surface board "6," a contact wire "7."

By Mr. Russell: Let the record show that the witness is marking these figures as he goes along on various exhibits for the purpose of identification.

By Mr. Threedy: I will ask the reporter to mark the sketch defendant's Exhibit 24 for identification.

(Defendant's Exhibit 24, sketch, marked for identification.)

798 By Mr. Threedy: These have all been marked with the exception of Exhibit 24, I think the other figures are marked Exhibits 22 and 23.

By Mr. Threedy: Will the stenographer please read the question.

(Question read by stenographer as follows:)

"Q. Did you make any other sketches at this present conference or any other conference you had with the Pacent Novelty Manufacturing Company?"

By Mr. Threedy: Q. Now, go on with your description?

A. I do not know where I had gotten.

By Mr. Threedy: I will have the answer read.

(Answer read by stenographer as follows:)

"A. I made a sketch dated August 15th, 1936 showing a wooden pin "5," a surface board "6," a contact wire "7,"—"

By Mr. Wilder: A. (Continuing) A bracket "10" having an aperture, a conical coil spring "A."

By Mr. Threedy: Let the record show the witness has placed "A" on sketch number 24.

By the Witness: A. (Continuing) Which restores the wooden pin "5" to normal position and causes a rebound of the ball.

By Mr. Threedy: Q. Does the device of sketch number 22, defendant's Exhibit marked for identification, exemplify defendant's Exhibit 4?

A. It does.

Q. And the spring of defendant's Exhibit 24 marked for identification, does that have the same function as the spring of defendant's Exhibit 4 marked for identification?

A. It does.

By Mr. Threedy: I offer Defendant's Exhibit 24 799 marked for identification in evidence in behalf of the defendant.

By Mr. Russell: I object.

By Mr. Threedy: Was the sketch marked Defendant's Exhibit 24 for identification made on the date it bears, August 15, 1936?

A. It was.

Q. And is the notation, sketch made August 15, 1936, appearing on Exhibit 24 marked for identification in your handwriting?

A. It is.

Q. Was that notation placed on there on the date, August 15, 1936?

A. It was.

Q. Was this sketch made for the Pacent Novelty Manufacturing Company?

A. Yes.

Q. What was the purpose of making these various sketches, if you know?

A. Why—

Q. Why did you make them?

By Mr. Russell: I object.

A. Relative to preparing an application for Letters Patent on the device.

By Mr. Threedy: Q. That is the device shown on these sketches?

A. Yes sir.

Q. Was the application filed?

A. No.

Q. Do you know why it was not filed?

A. No.

Q. Who did you talk to, Mr. Wilder, at the Pacent Novelty Manufacturing Company, if you remember?

A. Well, I think it was Mr. Raymond Kay, the manager, I am positive of that, I know it was.

800 Q. At the time you talked with Mr. Kay with reference to the sketches, Defendant's Exhibits 22, 23 and 24 marked for identification, do you recall whether or not there was anything said about a bumper contact or switch for a marble pin game where the spring was located above the board?

By Mr. Russell: I object.

A. I think I do.

By Mr. Threedy: Q. What was said?

By Mr. Russell: I object to that.

A. My recollection is that he told me that it was preferable to have the spring below the board.

Q. Was there a reason explained for that?

A. I think he said the spring above the board interfered somewhat with the operation of the game, the ball hitting it.

Q. That conversation you spoke of took place at the time of making one of these sketches?

A. It did.

Q. And took place between you and Mr. Kay?

A. It did.

Q. And here in Utica in the Pacent Novelty Manufacturing Company plant?

A. On Lincoln Avenue.

Q. Did you ever have any conversation with Mr. Fitch—do you know Mr. Fitch, Ellsworth Fitch?

A. I know who he is.

Q. Did you ever have any conversation with him regarding bumper contacts or switches?

A. I don't remember it, I might have been introduced to him at the time, but I don't just remember.

801 *Cross-Examination by Mr. Russell.*

Q. How long have you known Mr. Kay?


A. I knew him just at the time I talked with him on this conversation regarding these sketches.

Q. That is the first time you met him?

A. Yes.

Q. Did you ever meet him after that time?

A. I might have met him on the occasion of December 11th, 1936.

Q. Any other time that you met him? 

A. Not that I remember.

Q. In other words, it is your recollection you had about two conversations with him—one in August and one in December?

A. Yes sir.

Q. At what time did he deliver these drawings you refer to?

A. My recollection is—these sketches were made in his presence.

Q. In your presence?

A. Yes, and in his presence.

Q. In other words, he drew them himself?

A. No, I drew part of a sketch shown in Exhibit 22

showing the wooden pin and related parts, and Mr. Kay drew the electrical circuit. As to Exhibit 24, the sketch is in my handwriting. As to Exhibit 23, the sketch is not in my handwriting.

Q. What else did you do with reference to those drawings, if anything?

A. Nothing except file them in my office.

Q. And they are still in your files?

A. Yes sir.

Q. No other officers of the company have asked you about this case since you talked with Mr. Kay?

A. No, except I think some time a year or so ago I was called down to their Broad Street plant and had a consultation with some of the members of the Pacent 802 Novelty Manufacturing Company, Mr. Kay was not present.

Q. Do you know who was present at that conversation?

A. No, I don't remember.

Q. They made no request of any kind of you to go ahead with your application?

A. Yes, at that time they had some other ideas they were talking of patenting, and as my best recollection is, they thought this case had been already filed.

Q. They thought it had been filed—did they ask you whether or not it was filed?

A. My best recollection is they made the assertion that it had been filed.

Q. You said that you though they must have told you something, what did they tell you?

A. They were asking me to take out some patents on some of their ideas and they said this part had been filed, and I told it hadn't been filed—that is my best recollection of the conversation.

Q. Are you being paid to testify in these proceedings for your time?

A. No, outside of my subpoena fee.

Q. You have no interest in the outcome of this suit of any kind?

A. No, none whatever.

Redirect Examination by Mr. Threedy.

Q. These sketches marked Defendant's Exhibits 22, 23 and 24 for identification have always been in your possession from the time of the dates they bear?

A. They have.

Q. And never have been out of your possession?

A. No.

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Thomas L. Wilder.

Subscribed and Sworn To before me this 16th day of August, 1939.

(Seal)

Antonio Faga,
Notary Public,
Oneida County, N. Y.

804 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation,
a corporation,

Plaintiff,

vs.

Chicago Coin Machine Co.,
a corporation,

Defendant.

Civil No. 16,212.

At a Hearing held on Wednesday, July 26th, 1939, in the offices of Walter L. Potocki, Esq., First National Bank Building, Utica, New York, at 10 o'clock, A. M., Eastern Standard Time, before Antonio Faga, Notary Public, duly qualified to take depositions pursuant to the Rules of Civil Procedure for the District Court of the United States.

Appearances:

For the plaintiff—Russell, Murphy & Pearson, by John A. Russell, Esq., with Stephen Waszkiewicz, of counsel.

For the defendant—Clarence E. Threedy, Esq., associate counsel, Walter Potocki, and Lawrence Marino, Esqs.

Louise C. Rath, Official Supreme Court Stenographer, Oneida County Court House, Utica, New York.

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DEPOSITION OF SOL SILVERSTEIN.

SOL SILVERSTEIN, being duly called as a witness in the case of Ace Patents Corporation, a corporation, plaintiff, versus Chicago Coin Machine Company, a corpora-

tion, defendant, Civil No. 16,212, pursuant to the order of the United States District Court for the Northern District of Illinois, Eastern Division, (being Exhibit 1 heretofore copied in evidence), being sworn by Antonio Faga, Notary Public in and for the County of Oneida, State of New York, being interrogated, did testify and depose as follows:

Direct Examination by Mr. Threedy.

Q. State your name in full?

A. Sol Maurice Silverstein.

Q. Where do you reside?

A. 132 West 169th Street, New York City.

Q. What is your business?

A. I am factory representative for manufacturers.

Q. What manufacturers?

A. The Chicago Coin Machine Manufacturing Company.

Q. And the Chicago Coin Machine Manufacturing Company is one of the defendants here?

A. I understand so.

Q. How long have you been with the Chicago Coin Machine Manufacturing Company; the defendant here?

A. Since January of 1939.

Q. How old are you?

A. Thirty-seven.

Q. Where is the Chicago Coin Machine Manufacturing Company located?

A. 1725 Diversey Boulevard, Chicago, Illinois.

Q. Do you know of the Pacent Novelty Manufacturing Company formerly of Utica, New York?

806 A. I do.

Q. Where was it located?

A. On Lincoln Avenue in the city of Utica.

Q. Lincoln Avenue—whereabouts?

A. I think 1410, if I remember correctly.

Q. And do you know the business of the Pacent Novelty Manufacturing Company—if so, state it?

A. They manufactured—they were in the manufacturing end of the business, making Pin games.

Q. What was your connection with the Pacent Novelty Manufacturing Company?

A. My first connection was as a buyer.

Q. When did you become associated with them as a buyer?

A. During July of 1936.

Q. Have you any way of fixing that date?

A. Well, I guess from the Billboard is as good a way as any.

Q. The Billboard you refer to is what?

A. When we advertised the game, when we started to sell it.

Q. What game was that?

A. "Bolo."

By Mr. Russell: The witness refers to defendant's Exhibit 3?

A. The Billboard, yes.

By Mr. Threedy: Q. You stated that when you first became associated with the Pacent Novelty Manufacturing Company you were a buyer for that company, is that right?

A. No, I purchased from that company.

Q. As a buyer?

A. Yes.

Q. From the Pacent Novelty Manufacturing Company?

A. Yes.

Q. And that was at the time you state?

807 A. Yes, during July, 1936, and on up until November when I sold out my interest in New York and came to work for the factory.

Q. When did you come to work for the Pacent Novelty Manufacturing Company?

A. In November, 1936.

Q. How do you fix that date?

A. I have a Social Security card that I took out at the time and this was taken out some weeks—

By Mr. Threedy: This Social Security card which is produced by the witness as fixing the date when he became an employee of the Pacent Novelty Manufacturing Company bears #075-01-3441, and is made out in the name of Sol Maurice Silverstein, and bears date of December 5, 1936, and a tab attached to the card is typewritten thereon, Pacent Novelty Manufacturing Company, Yates Hotel—this has been read into the record by counsel for the defendant to avoid introducing in the record the card.

By Mr. Russell: All right.

By Mr. Threedy: Q. As an employee of the Pacent Novelty Manufacturing Company, what were your duties, Mr. Silverstein?

A. To further the sale of the "Bolo" machine.

Q. To what extent, if any, if you know, was the "Bolo" machine sold?

A. Well, in excess of three thousand machines.

Q. Now, the "Bolo" machine you refer to, is that exemplified by defendant's Exhibit 2 marked for identification, which I call your attention to?

A. That is a "Bolo" machine.

Q. Is that "Bolo" machine shown in defendant's Exhibit 3 for identification on page 84?

A. It is.

Q. Now, did you have occasion to have access to 808 the various departments of the Pacent Novelty Manufacturing Company?

A. Yes, I had access to almost every place in the plant.

Q. What departments in particular?

A. Well, I used to go through the experimental room, the office, the assembly line.

Q. How often did you enter the experimental room?

A. Well, I would say very many times.

Q. Did you enter the experimental room of the Pacent Novelty Manufacturing Company frequently enough to become acquainted with the different developments taking place therein?

A. Yes, I did.

Q. Now, I will ask you to look at the sketch marked defendant's Exhibit 17 for identification, and ask you if you can state whether or not during any one of your visits in the experimental department you saw a game board with a bumper contact or switch mounted thereon similar to that shown on Figure 17?

A. Is this a steel pin?

Q. Yes?

A. Yes.

Q. Do you know when you first saw such a bumper contact?

A. It would be during July, 1936.

Q. How do you fix the date of July of 1936 as that date?

A. That was on my very first visit to the factory.

Q. I call your attention to defendant's Exhibit 19 marked for identification and I will ask you whether or not in any one of your visits to the experimental room you saw a game board with bumper contact or switch such as is exemplified in Exhibit 19, mounted thereon?

A. I remember seeing this on a part of a board.

Q. How large was that board?

A. Possibly 12 x 18.

Q. Were either of these bumper switches as shown in 809 defendant's Exhibit 17 and defendant's Exhibit 19 marked for identification demonstrated to you?

A. I saw this one demonstrated. (Indicating Exhibit 17.)

By Mr. Threedy: Witness refers to Exhibit 17.

Q. What about Exhibit 19.

A. I played with that one myself.

Q. When did that take place?

A. That would be during July or the early part of August, 1936.

Q. Where?

A. In the experimental room of the Pacent Novelty Manufacturing Company.

Q. On Lincoln Avenue in the city of Utica?

A. Yes sir.

Q. And that also is true with reference to the bumper switch exemplified in defendant's Exhibit 17 marked for identification?

A. Yes sir.

Q. Do you know of your own knowledge—first, answer yes or no—who developed the bumper switches exemplified in defendant's Exhibits 17 and 19 marked for identification?

A. Yes.

By Mr. Russell: I object to that as a conclusion of the witness.

By Mr. Threedy: Q. Who do you know developed these two switches?

A. Ellsworth Fitch.

Q. How do you know that?

A. He was the experimental engineer and was working on all these particular gadgets, I was referred to him when I brought a game up there myself.

By Mr. Russell: I move that be stricken out of the record.

By Mr. Threedy: Q. Who referred you to Mr. Fitch?

A. The general manager of the company.

810 Who was the general manager of the company?

A. Raymond Kay.

Q. I direct your attention to defendant's Exhibit 8 marked for identification, and I will ask you if you have ever seen springs of that type before?

A. I have.

Q. When did you see such springs and where?

A. Mounted on a board during my first visit; and they are characteristic of Exhibit 19.

Q. When was that?

A. During July or the very early part of August or the latter part of July.

Q. Do you know Mr. Martin Grimm?

A. I do.

Q. Do you know of your own knowledge that Martin Grimm was identified with the Pacent Novelty Manufacturing Company?

A. I do.

Q. Do you know in what capacity?

A. He was President of the company.

Q. Did you know John Grimm?

A. I do.

Q. Do you know whether or not he was identified with the Pacent Novelty Manufacturing Company?

A. He was working there so far as I know, I have seen him work there.

Q. What position did Mr. Fitch hold?

A. He was the experimental engineer there.

Q. And Mr. Fitch, whom we spoke of, is he the Mr. Fitch of Boonville?

A. Yes sir.

Q. I want you to look at defendant's Exhibit 7 marked for identification and state whether or not you have ever seen this before?

811 A. Many times.

Q. State what it is if you can?

A. It was a testing rack on which they used to play the face of the Pin board machine.

Q. Do you know how the Pin board machine was placed on this rack?

A. Yes, it rested across the two head pieces.

Q. Referring to the felt portions?

A. Yes sir.

Q. Now, I call your attention to defendant's Exhibit 10 marked for identification, which I advise you that I had made to exemplify the bumper contact switch, and ask you if you have seen the switch, disregarding the form and shape of that structure?

A. Essentially the same, yes.

Q. The same as what?

A. As Exhibit 10.

Q. Does that Exhibit 10 marked for identification have any characteristics common to the bumper switch shown in defendant's Exhibit 17?

By Mr. Russell: I object to that.

A. Yes.

By Mr. Threedy: Q. In what respect?

A. It has the same steel pin that I saw in Exhibit 17 and the spring, with the exception that you have several more loops of wire around it.

Q. I show you Exhibit 11 marked for identification, which is an explanatory model, and ask you if you have seen a spring of that type, disregarding form and shape?

A. Yes, similar with the exception it is larger in diameter than the one shown in Exhibit 19.

Q. I hand you defendant's Exhibit 9 marked for identification, and ask you if you can identify the same?

812 A. Yes, I can.

Q. What is Exhibit 9?

A. It is a steel pin.

Q. Do you know what use it was put to?

A. It was originally intended to go in top of a Bolo Pin game.

Q. By whom?

A. By a firm in Brooklyn named S. Johnson Company.

Q. And by whom?

A. By Pacent Novelty Manufacturing Company.

Q. Do you know where it was purchased?

A. I do.

Q. Where was it purchased?

A. In Brooklyn from a firm known as the Johnson Company.

Q. Do you know when?

A. Originally the order was given in March, 1936.

Q. I hand you herewith defendant's Exhibit 13 marked for identification and ask you if you have ever seen that before?

A. Yes, I did.

Q. Where did you see it?

A. In the experimental room.

Q. When?

A. During my very first visit to the Pacent Novelty Manufacturing Company.

Q. And you saw it in the experimental room of what?

A. Of the Pacent Novelty Manufacturing Company.

Q. When did you see that?

A. During my visit there in the very early part of July or the 1st of August, 1936.

Q. Now, you state you are an employee of the Chicago Coin Machine Manufacturing Company, the defendant herein?

A. Yes.

Q. Has the Chicago Coin Machine Manufacturing Company at any time authorized you in their behalf to 813 enter into a contract with Ellsworth Fitch?

A. No sir.

Q. Do you have a contract with him?

A. I have.

Q. What is the nature of that contract?

By Mr. Russell: The contract speaks for itself and it is in evidence.

By Mr. Threedy: Q. When these bumper switches as exemplified by Exhibits 17 and 19 marked for identification were demonstrated—strike out that—when the bumper switch of defendant's Exhibit 17 was demonstrated to you, what contacted the spring "T"?

A. A ball pushed against the spring "T" and said spring "T" struck the steel or made contact with the steel pin "S".

Q. What happened to the ball after it hit the spring "T"?

A. It rebounded and rolled down the board.

Q. Is that true with reference to the bumper spring shown on Exhibit 19 marked for identification?

A. When the ball struck "B", it pushed spring "B" over to "F".

Q. I hand you herewith defendant's Exhibit 4 marked for identification and ask you if you can identify that as having seen that before?

A. Yes sir.

Q. When did you see that or one like it?

A. July, 1936.

Q. Now, that was prior to the time that the Social Security card was issued to you?

A. Yes.

Q. What does it represent?

A. That is the pin assembly that was placed in the "Bolo" game.

Q. Mr. Silverstein, do you know the names of the witnesses who have testified thus far in this case?

A. I do.

814 Q. Can you name them?

A. Yes.

Q. Please do so?

A. Mr. John Grimm, Martin Grimm, Ellsworth Fitch and Mr. Wilder.

Q. Have you offered to pay any one of those witnesses for their services in testifying in this cause?

A. Never.

Q. Have you made any future promises to pay them for testifying in this cause?

A. No, I have not.

Q. Have you indirectly through others made any offer to pay them for testifying in this cause?

A. No, I haven't.

Cross-Examination by Mr. Russell.

Q. What was the first time you were in the plant of the Pacent Novelty Manufacturing Company?

A. It would be during the latter part of July or the first of August, 1936.

Q. By whom were you employed at that time?

A. I wasn't employed, I was a partner in the New York Distributing Company.

Q. What was their product?

A. Sales agent.

Q. For whom?

A. Many manufacturers.

Q. What were their products?

A. Amusement games.

Q. Slot machines?

A. No sir.

Q. What kind of games?

815 A. They were the New York distributors for A.

B. T. Pestol Gun with Gum Vendor, I also sold Stoner products, Bally products, Daval products and generally anything applying to the amusement games.

Q. And you became associated with the Pacent Novelty Manufacturing Company in December?

A. Well yes, I broke up that partnership and went to work for the Pacent Novelty Manufacturing Company in November.

Q. In what capacity?

A. As salesman, furthering the sale of their machines.

Q. Were you in full charge of their sales?

A. No.

Q. You don't know how many were sold from your own recollection?

A. From observation and knowing the quantities used and the quantities of parts that were bought, I would believe it would be around \$3,000.00.

Q. Now, you went in the Pacent Novelty Manufacturing Company shop on or about July or August, and that is the only time you were in the place until November?

A. No, many times.

Q. But you saw everything the first time you were there?

A. Yes sir.

Q. And you never saw them after?

A. Oh yes, I did.

Q. When did you go to work for the Chicago Coin Machine Manufacturing Company?

A. January, 1939.

Q. When did the Chicago Coin Machine Manufacturing Company begin making bumper game?

By Mr. Threedy: I object to that.

A. I don't think I can answer truthfully, I don't know exactly when they did.

816 Q. They made them after you came with them?

By Mr. Threedy: I object to that as not germane to the issue, improper cross-examination and move that the answer and question be stricken from the record.

A. Yes, they made games, using an electrical switch.

By Mr. Russell: Q. They began that after you came with them?

By Mr. Threedy: Same objection.

A. They made them before and after.

Q. The first time you saw a bumper game was at the show in Chicago, wasn't it?

A. We brought the "Bolo" there, yes.

Q. The spring bumper game?

A. No, I saw a spring bumper game before the show in Chicago.

Q. At the Bally plant?

A. No sir.

Q. Bally was the only one that had a spring bumper game at the show?

A. I beg to differ with you, I saw that game in the

Pacific Show—the “Hy-de-ho” game in the experimental room of the Pacific Amusement Company.

Q. Did Fred McClellan show it to you?

By Mr. Threedy: I object to that as highly improper and not proper cross-examination.

By Mr. Threedy: Your original question was not proper cross-examination and the objection is made to all this line of questioning.

By Mr. Russell: The witness, having volunteered the fact that he saw a bumper coil spring game in the Pacific plant in December of '36, gives me the right to ask further with reference to that.

By Mr. Russell: Q. Who showed you the coil spring bumper game in the Pacific plant?

817 A. I don't remember who showed it to me, I just saw it.

Q. Did you sell “Rack-em-up,” a game for the Pacent Novelty Manufacturing Company?

By Mr. Threedy: I object to this as not proper cross-examination.

By Mr. Russell: Q. Answer yes or no?

A. Yes.

Q. When did you begin the sale of them?

A. In the show in January.

Q. Then later on after the show they came out with a game called “Stop-em”?

A. I don't know anything about that?

Q. That wash't made while you were there?

A. No.

Q. Now, you referred to Exhibits 10 and 11 as having seen them before?

A. Yes, I have seen those before.

Q. This particular model, where did you first see those?

A. Here in Utica.

Q. When?

A. Several days ago.

Q. When did you see the similar model you referred to this Exhibit (indicating)?

A. I saw these in July or the early part of August in 1936.

Q. What you saw was some crude form of make-up?

A. I wouldn't call them crude, I think I have seen the same thing as this—it works.

Q. That is referring to Exhibit 8, that was the kind of a coil spring it had?

A. Yes.

Q. What kind of a pin did it have?

A. It was a nail driven through the wood, this was soldered on the top.

818 Q. When did you first meet Mr. Fitch?

A. July of 1936.

Q. And then you saw him from time to time while you were with him?

A. Yes sir.

Q. And again saw him about April of this year?

A. Yes sir.

Q. And while you were an employee of the Chicago Coin Machine Manufacturing Company you went to him with reference to these proceedings?

A. No, you are wrong about that.

Q. You went for the purpose of discussing the patent or discussing the patent suit filed by him by the Ace Patents Company against the Chicago Coin Machine Manufacturing Company?

A. No, I didn't.

Q. You paid him some money?

A. No sir.

Q. Your contract says you paid some money?

A. Not at that first visit.

Q. How many visits did you have?

A. Several.

Q. With reference to his interest in this patent?

A. With reference to what he knew about these springs.

Q. What was your purpose in going to Fitch—was that to ascertain what he knew about these bumper springs?

A. Whether or not he had any or could give me some information which he knew that I didn't know.

Q. And those negotiations resulted in making that deal for the patent?

A. What I found out led me to believe that he knew and I knew at the time that Fitch was the inventor of this, and that he could get the patent.

Q. But he never filed an application?

819 A. I never knew that until after the conversation, but I felt that knowing he was the inventor of the switch he was rightfully entitled to the patent.

Q. So you were going to file the application for him?

A. Yes sir.

Q. And that was last April?

A. It would be the date of the contract.

Q. You haven't done that yet—filed that application?

A. No.

Q. When do you expect to pay him the other \$400.00?

A. After the patent is granted.

Q. You made a deal with the Grimms that they would get a share of the patent if you got it, did you not?

A. I did not.

Q. You made some kind of a deal with them?

A. None at all.

Q. Did you make a deal with Fitch outside of what is set forth in this contract?

A. No.

Q. When was the show in 1936, January or February?

A. I am talking about the show in 1937, January 1937—then again, it might have been the latter part of December.

Q. It was in 1937?

A. Either December 1936 or the early part of 1937, I believe it was in December some time, the latter part of December or early January.

By Mr. Threedy: This is not strictly re-direct examination, but I would like to ask some questions if you have no objection.

By Mr. Russell: Go ahead.

By Mr. Threedy: Q. Mr. Silverstein, when you talked to me about the matter of these developments of the bumper contact switches, do you recall that I asked you if you would make a search for any of the original parts and 820 devices and so forth?

A. Yes.

Q. Did you make that search?

A. I did.

Q. What was the result?

A. I was successful in obtaining some of the original steel and some of them, this Exhibit 8, and I located this Exhibit here—Exhibit 7, and Exhibit 13 and Exhibit 4.

Q. No other parts or Exhibits could be located?

A. No, it was hard to even get these.

Q. And this contract you spoke of that you have been interrogated on, did the Chicago Coin Machine Manufacturing Company have anything to do with that contract?

A. No.

Q. Have they any interest in that contract?

A. No.

Q. It is exclusive between you two?

A. Yes sir.

Q. Personally between Fitch and yourself?

A. Yes sir.

Q. Have you talked with Mr. Wilder with reference to a patent application?

A. Yes sir.

Q. It is your intention to file an application for a patent?

A. Yes sir.

By Mr. Threedy: That is all.

By Mr. Threedy: Now, any Exhibits that have not been offered in evidence may be offered in evidence subject to your objection, Mr. Russell.

By Mr. Russell: Yes.

Hearing adjourned at 6:10, Daylight Saving Time.

821 Witness L. Patorki

Sol Silverstein.

Subscribed and sworn to before me this 14th day of August, 1939.

(Seal)

Antonio Faga,
Notary Public,
Oneida County, N. Y.

822 I, Louise C. Rath, one of the duly qualified Supreme Court Stenographers in and for the Fifth Judicial District, State of New York, do hereby certify, that the foregoing depositions viz., of John Grimm, 969 Bleecker Street, Utica, New York; Ellsworth M. Fitch, Boonville, New York; Martin B. Grimm, 969 Bleecker Street, Utica, New York; Thomas L. Wilder, Mayro Building, Utica, New York; and Sol M. Silverstein, 132 West 169 Street, New York City, were transcribed by me from my shorthand notes taken at the hearing on July 26th, 1939, at which hearing the above entitled witnesses did appear and were examined under oath, and that the same is a full, true and correct transcript of each and every of the aforesaid depositions.

Louise C. Rath,
Official Stenographer.

443 And on, to wit, the 11th day of July, A. D., 1940, came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Exhibits No. 2-E and 3-E in words and figures following, to it:

PLAINTIFF'S EXHIBIT 2-E.

IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation,
a corporation,

Plaintiff,

vs.

The Exhibit Supply Company,
a corporation,

Defendant.

Civil No. 16,209.

STIPULATION.

It is hereby stipulated by the parties hereto by their respective counsel:

1. This cause may be consolidated for trial with the cases of *Ace Patents Corporation v. Chicago Coin Machine Company*, Equity No. 16,212 and *Ace Patents Corporation v. Genco, Inc.*, Equity No. 16,210.

2. Plaintiff is a lawfully incorporated Illinois corporation.

3. The Nelson patent in suit, No. 2,109,678, was issued to Raymond T. Maloney as assignee of Nels A. Nelson on March 1, 1938, and is now owned by plaintiff, Ace Patents Corporation, which has all rights and interests therein and all rights to recover for past infringement thereof.

4. So-called soft or uncertified printed copies of United States Patents, photostatic prints of foreign patents and photostatic prints of printed publications and a soft or uncertified printed copy of the patent in suit may be used and introduced in evidence at the trial of this cause with the same force and effect as certified or originals thereof, the dates appearing on said soft or uncertified printed copies of United States Patents, photostatic prints of foreign patents and photostatic prints of printed publications are accepted as prima facie proof of the dates of publication thereof, all subject to the correction of errors if any be shown.

5. Defendant made and sold within the jurisdiction of

this Court after March 1, 1938, ball rolling games embodying contact switches of the type exemplified by the devices marked Defendant's Exhibits E-1 and E-2 and E-3.

6. Defendant, on or about March 17, 1938, received from plaintiff a notice of infringement of Nelson patent 2,109,678, in the form of the letter attached hereto as Plaintiff's Exhibit 3-E.

7. The books and records of Pacent Novelty Mfg. Co. of Utica, New York, show that such company sold games known as "Bolo," one of which is marked Defendants' Exhibit 2, from August 13, 1936 to March 30, 1937.

8. The books and records of Pacent Novelty Mfg. Co. of Utica, New York, show that such company sold games known as "Rack 'Em Up," referred to in the depositions taken by defendants herein, from January 12, 1937 to March 30, 1937.

9. The books and records of Pacent Novelty Mfg. Co. of Utica, New York, show that such company sold games known as "Stop 'Em," one of which is marked Plaintiff's Exhibit 4, from March 13, 1937 to about March 30, 1937.

10. The books and record of Pacent Novelty Mfg. Co. now in the custody of counsel for plaintiff may without further identification or proof, be introduced into 446 evidence for all purposes as the books and records of that company and as containing entries made in the regular course of its business, at or within a reasonable time after the occurrence of the transactions recorded therein, pursuant to the regular course of that company's business to make such entries and records.

11. The advertisement appearing on the upper half of page 67 of the publication The Billboard issue of July 11, 1936, is an authorized and authentic advertisement by the Pacent Novelty Manufacturing Company, Inc. of 1410 Lincoln Street, Utica, New York advertising to the trade the game apparatus "Bolo" and that said Billboard, particularly page 67 thereof was published July 11, 1936 and that a photostatic copy of said page 67 of the said Billboard may be introduced in evidence as a true copy of said advertisement.

12. Page 84 of the publication The Billboard dated July 18, 1936 herebefore offered in evidence as Def. Exh. 3 at the time of the taking of the depositions in the above entitled cause in Utica, New York is a genuine and authorized advertisement of the game "Bolo" manufactured and sold by the Pacent Novelty Manufacturing Company,

Inc. of 1410 Lincoln Street, Utica, New York and that the said page 84 of the said Billboard may be introduced in evidence as an authorized advertisement by the said Pacent Novelty Manufacturing Company, Inc. and that the date appearing on said page 84 is accepted as proof of the date of said publication of said Billboard dated July 18, 1936, a photostatic copy of which page may be introduced in evidence as a true copy of said advertisement.

447 13. The advertisement appearing on the upper half of page 97 of the publication the Billboard issue of July 25, 1936, is an authorized and authentic advertisement by the Pacent Novelty Manufacturing Company, Inc. of 1410 Lincoln Street, Utica, New York advertising to the trade the game apparatus "Bolo" and that said Billboard, particularly page 97 thereof was published July 25, 1936 and that a photostatic copy of said page 67 of the said Billboard may be introduced in evidence as a true copy of said advertisement.)

14. That the Bolo game heretofore offered in evidence as Defendant's Exhibit 2 at the time of the taking of depositions in the above-entitled case at Utica, New York, is of the manufacture of the Pacent Novelty Manufacturing Company, Inc. of 1410 Lincoln Street, Utica, New York, and was developed and manufactured for sale by said company prior to the alleged invention by the patentee Nelson of the device shown, described and claimed in Patent No. 2,109,678 in suit, and that said Bolo game (Def. Exh. 2) may be introduced and received in evidence at the trial of this cause as exemplifying the device of said advertisement mentioned in Paragraphs 11, 12 and 13 herein.

Russell, Murphy & Pearson
and

Casper W. Ooms,
Attorney for Plaintiff.

Clarence E. Threedy,
Attorney for Defendant.

April 17, 1940.

448

PLAINTIFF'S EXHIBIT 3-E.

March 17, 1938.

Exhibit Supply Co.
4222 West Lake Street,
Chicago, Illinois.

In re: Bumper Spring Patent.

Gentlemen:

We represent the Ace Patents Corporation, the sole owner of Letters Patent Number 2,109,678 issued on March 1, 1938, covering new and useful improvements in Contact Switches for use in Ball Rolling Games, which is commonly known to the Game Industry as the "Bumper Spring Patent".

We are informed that you are now manufacturing and selling products, which, in the opinion of our Associate Patent Counsel, infringe the claims of this Patent. We know that you would not intentionally infringe upon this Patent, and therefore are enclosing a copy of the same in order that you may familiarize yourself with all the details of the claims contained therein.

We are authorized to enter into negotiations with you as to the terms of a license under which you would be privileged to manufacture and sell products embodying the features of this Patent, and respectfully ask that you let us know immediately your intentions with reference to our suggestion.

Very truly yours,

Russell, Murphy and Pearson,

By

John A. Russell.

JAR:MD

Registered Mail.

Return Receipt Requested.

449 And on, to wit the 11th day of July, A. D., 1940, came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Exhibits No. 2-C and 3-C in words and figures following, to wit:

2

PLAINTIFF'S EXHIBIT 2-C.

IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation,
a corporation,

Plaintiff,

vs.

Chicago Coin Machine Co.,
a corporation,

Defendant.

Civil No. 16,212.

STIPULATION.

It is hereby stipulated by the parties hereto by their respective counsel:

1. This cause may be consolidated for trial with the cases of Ace Patents Corporation *vs.* Genco, Inc., Equity No. 16,210 and Ace Patents Corporation *vs.* The Exhibit Supply Co., Equity No. 16,209.

2. Plaintiff is a lawfully incorporated Illinois corporation.

3. The Nelson patent in suit, No. 2,109,678, was issued to Raymond T. Maloney as assignee of Nels A. Nelson on March 1, 1938, and is now owned by plaintiff, Ace Patents Corporation, which has all rights and interests therein and all rights to recover for past infringement thereof.

4. So-called soft or uncertified printed copies of United States Patents, photostatic prints of foreign patents and photostatic prints of printed publications and a soft or uncertified printed copy of the patent in suit may be used and introduced in evidence at the trial of this cause with the same force and effect as certified or originals thereof, the dates appearing on said soft or uncertified printed copies of United States Patents, photostatic prints of foreign patents and photostatic prints of printed publications are accepted as *prima facie* proof of the dates of publication thereof, all subject to the correction of errors if any be shown.

5. Defendant made and sold within the jurisdiction of

this Court after March 1, 1938, ball rolling games embodying contact switches of the type exemplified by the devices marked Defendant's Exhibits C-1 and C-2.

6. Defendant, on or about March 17, 1938, received from plaintiff a notice of infringement of Nelson patent 2,109,678, in the form of the letter attached hereto as Plaintiff's Exhibit 3-C.

7. The books and records of Pacent Novelty Mfg. Co. of Utica, New York, show that such company sold games known as "Bolo," one of which is marked Defendants' Exhibit 2, from August 13, 1936 to March 30, 1937.

8. The books and records of Pacent Novelty Mfg. Co. of Utica, New York, show that such company sold games known as "Rack 'Em Up," referred to in the depositions taken by defendants herein, from January 12, 1937 to March 30, 1937.

9. The books and records of Pacent Novelty Mfg. Co. of Utica, New York, show that such company sold games known as "Stop 'Em," one of which is marked Plaintiff's Exhibit 4, from March 13, 1937 to about March 30, 1937.

10. The books and records of Pacent Novelty Mfg. Co. now in the custody of counsel for plaintiff may without further identification or proof, be introduced into 452 evidence for all purposes as the books and records of that company and as containing entries made in the regular course of its business, at or within a reasonable time after the occurrence of the transactions recorded therein, pursuant to the regular course of that company's business to make such entries and records.

11. The advertisement appearing on the upper half of page 67 of the publication *The Billboard* issue of July 11, 1936, is an authorized and authentic advertisement by the Pacent Novelty Manufacturing Company, Inc. of 1410 Lincoln Street, Utica, New York advertising to the trade the game apparatus "Bolo" and that said *Billboard*, particularly page 67 thereof was published July 11, 1936 and that a photostatic copy of said page 67 of the said *Billboard* may be introduced in evidence as a true copy of said advertisement.

12. Page 84 of the publication *The Billboard* dated July 18, 1936 herebefore offered in evidence as Def. Exh. 3 at the time of the taking of the depositions in the above entitled cause in Utica, New York is a genuine and authorized advertisement of the game "Bolo" manufactured

and sold by the Pacent Novelty Manufacturing Company, Inc. of 1410 Lincoln Street, Utica, New York and that the said page 84 of the said Billboard may be introduced in evidence as an authorized advertisement by the said Pacent Novelty Manufacturing Company, Inc. and that the date appearing on said page 84 is accepted as proof of the date of said publication of said Billboard dated July 18, 1936, a photostatic copy of which page may be introduced in evidence as a true copy of said advertisement.

453 13. The advertisement appearing on the upper half of page 97 of the publication the Billboard issue of July 25, 1936, is an authorized and authentic advertisement by the Pacent Novelty Manufacturing Company, Inc. of 1410 Lincoln Street, Utica, New York advertising to the trade the game apparatus "Bolo" and that said Billboard, particularly page 97 thereof was published July 25, 1936 and that a photostatic copy of said page 67 of the said Billboard may be introduced in evidence as a true copy of said advertisement.

14. That the Bolo game heretofore offered in evidence as Defendant's Exhibit 2 at the time of the taking of depositions in the above-entitled case at Utica, New York, is of the manufacture of the Pacent Novelty Manufacturing Company, Inc. of 1410 Lincoln Street, Utica, New York, and was developed and manufactured for sale by said company prior to the alleged invention by the patentee Nelson of the device shown, described and claimed in Patent No. 2,109,678 in suit, and that said Bolo game (Def. Exh. -2) may be introduced and received in evidence at the trial of this cause as exemplifying the device of said advertisement mentioned in Paragraphs 11, 12 and 13 herein.

Russell, Murphy & Pearson &
Casper W. Ooms,

Attorney for Plaintiff.

Clarence E. Threedy,

Attorney for Defendant.

April 17, 1940.

454

PLAINTIFF'S EXHIBIT 3-C.

March 17, 1938.

Chicago Coin Machine Mfg. Co.
1725 W. Diversey Avenue,
Chicago, Illinois:

In re: Bumper Spring Patent.

Gentlemen:

We represent the Ace Patents Corporation, the sole owner of Letters Patent Number 2,109,678 issued on March 1, 1938, covering new and useful improvements in Contact Switches for use in Ball Rolling Games, which is commonly known to the Game Industry as the "Bumper Spring Patent".

We are informed that you are now manufacturing and selling products, which, in the opinion of our Associate Patent Counsel, infringe the claims of this Patent. We know that you would not intentionally infringe upon this Patent, and therefore are enclosing a copy of the same in order that you may familiarize yourself with all the details of the claims contained therein.

We are authorized to enter into negotiations with you as to the terms of a license under which you would be privileged to manufacture and sell products embodying the features of this Patent, and respectfully ask that you let us know immediately your intentions with reference to our suggestion.

Very truly yours,
Russell, Murphy and Pearson,
By _____

John A. Russell.

JAR:MD

Registered Mail.

Return Receipt Requested.

455 And on, to wit, the 11th day of July, A. D., 1940, came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Exhibits No. 2-G and 3-G in words and figures following, to wit:

PLAINTIFF'S EXHIBIT 2-G.

IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation,
a corporation,*Plaintiff,**vs.*Genco, Inc.,
a corporation,*Defendant.*

Civil No. 16,210.

STIPULATION.

It is hereby stipulated by the parties hereto by their respective counsel:

1. This cause may be consolidated for trial with the cases of Ace Patents Corporation *vs.* Chicago Coin Machine Company, Equity No. 16,212 and Ace Patents Corporation *vs.* The Exhibit Supply Co., Equity No. 16,209.

2. Plaintiff is a lawfully incorporated Illinois corporation.

3. The Nelson patent in suit, No. 2,109,678, was issued to Raymond T. Maloney as assignee of Nels A. Nelson on March 1, 1938, and is now owned by plaintiff, Ace Patents Corporation, which has all rights and interests therein and all rights to recover for past infringement thereof.

4. So-called soft or uncertified printed copies of United States Patents, photostatic prints of foreign patents and photostatic prints of printed publications and a soft or uncertified printed copy of the patent in suit may be used and introduced in evidence at the trial of this cause with the same force and effect as certified or originals thereof, the dates appearing on said soft or uncertified printed copies of United States Patents, photostatic prints of foreign patents and photostatic prints of printed publications are accepted prima facie proof of the dates of publication thereof, all subject to the correction of errors if any be shown.

5. Defendant made and sold within the jurisdiction of

this Court after March 1, 1938, ball rolling games embodying contact switches of the type exemplified by the device marked Defendant's Exhibit G-1.

6. Defendant, on or about March 17, 1938, received from plaintiff a notice of infringement of Nelson patent 2,109,678, in the form of the letter attached hereto as Plaintiff's Exhibit 3-G.

7. The books and records of Pacent Novelty Mfg. Co. of Utica, New York, show that such company sold games known as "Bolo," one of which is marked Defendants' Exhibit 2, from August 13, 1936 to March 30, 1937.

8. The books and records of Pacent Novelty Mfg. Co. of Utica, New York, show that such company sold games known as "Rack 'Em Up," referred to in the depositions taken by defendants herein, from January 12, 1937 to March 30, 1937.

9. The books and records of Pacent Novelty Mfg. Co. of Utica, New York, show that such company sold games known as "Stop 'Em," one of which is marked Plaintiff's Exhibit 4, from March 13, 1937 to about March 30, 1937.

10. The books and records of Pacent Novelty Mfg. Co. now in the custody of counsel for plaintiff may without further identification or proof, be introduced into evidence for all purposes as the books and records of that company and as containing entries made in the regular course of its business, at or within a reasonable time after the occurrence of the transactions recorded therein, pursuant to the regular course of that company's business to make such entries and records.

11. The advertisement appearing on the upper half of page 67 of the publication *The Billboard* issue of July 11, 1936, is an authorized and authentic advertisement by the Pacent Novelty Manufacturing Company, Inc. of 1410 Lincoln Street, Utica, New York advertising to the trade the game apparatus "Bolo" and that said *Billboard*, particularly page 67 thereof was published July 11, 1936 and that a photostatic copy of said page 67 of the said *Billboard* may be introduced in evidence as a true copy of said advertisement.

12. Page 84 of the publication *The Billboard* dated July 18, 1936 herebefore offered in evidence as Def. Exh. 3 at the time of the taking of the depositions in the above entitled cause in Utica, New York is a genuine and authorized advertisement of the game "Bolo" manufactured and sold by the Pacent Novelty Manufacturing Company, Inc.

of 1410 Lincoln Street, Utica, New York, and that the said page 94 of the said Billboard may be introduced in evidence as an authorized advertisement by the said Pacent Novelty Manufacturing Company, Inc. and that the date appearing on said page 84 is accepted as proof of the date of said publication of said Billboard dated July 18, 1936, a photostatic copy of which page may be introduced in evidence as a true copy of said advertisement.

459 13. The advertisement appearing on the upper half of page 97 of the publication the Billboard issue of July 25, 1936, is an authorized and authentic advertisement by the Pacent Novelty Manufacturing Company, Inc. of 1410 Lincoln Street, Utica, New York advertising to the trade the game apparatus "Bolo" and that said Billboard, particularly page 97 thereof was published July 25, 1936 and that a photostatic copy of said page 67 of the said Billboard may be introduced in evidence as a true copy of said advertisement.

14. That the Bolo game heretofore offered in evidence as Defendant's Exhibit 2 at the time of the taking of depositions in the above-entitled case at Utica, New York, is of the manufacture of the Pacent Novelty Manufacturing Company, Inc. of 1410 Lincoln Street, Utica, New York, and was developed and manufactured for sale by said company prior to the alleged invention by the patentee Nelson of the device shown, described and claimed in Patent No. 2,109,678 in suit, and that said Bolo game (Def. Exh. 2) may be introduced and received in evidence at the trial of this cause as exemplifying the device of said advertisement mentioned in paragraphs 11, 12 and 13 herein.

Russell, Murphy & Pearson,
Casper W. Ooms,
Attorney for Plaintiff.
Clarence E. Threedy,
Attorney for Defendant.

April 17, 1940.

460

PLAINTIFF'S EXHIBIT 3-G.

March 17, 1938.

Genco, Inc.
2621 North Ashland Avenue
Chicago, Illinois

In re: Bumper Spring Patent

Gentlemen:

We represent the Ace Patents Corporation, the sole owner of Letters Patent Number 2,109,678 issued on March 1, 1938, covering new and useful improvements in Contact Switches for use in Ball Rolling Games, which is commonly known to the Game Industry as the "Bumper Spring Patent."

We are informed that you are now manufacturing and selling products, which, in the opinion of our Associate Patent Counsel, infringe the claims of this Patent. We know that you would not intentionally infringe upon this Patent, and therefore are enclosing a copy of the same in order that you may familiarize yourself with all the details of the claims contained therein.

We are authorized to enter into negotiations with you as to the terms of a license under which you would be privileged to manufacture and sell products embodying the features of this Patent, and respectfully ask that you let us know immediately your intentions with reference to our suggestion.

Very truly yours,
Russell, Murphy and Pearson,
By John A. Russell.

JAR:MD
Registered Mail
Return Receipt Requested

461 And on, to wit, the 11th day of July, A. D. 1940 came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Exhibit No. 15 in words and figures following, to wit:

PLAINTIFF'S EXHIBIT 15

Lion Manufacturing Corporation
Production of Games
Equipped with Bumper Springs

Name of Game	Total	1940 to April 30	1939	1938	1937	1936
Airway.....	31.05			1.02	30.03	
Arcade.....	6.02			6.02		
Bally Booster.....	35.02				35.02	
Bally Bull's Eye.....	12.51			12	12.39	
Bally Charm.....	1.47	1.47				
Bally Reserve.....	100.93			100.93		
Bally Royal.....	3.99		3.99			
Bally View.....	5.01			5.01		
Bambino.....	12.49			12.49		
Bumper.....	189.70				180.64	9.06
Carom.....	31.98				31.98	
Chevron.....	20.00		20.00			
Double Feature.....	7.03		7.03			
Equalite.....	5.00				5.00	
Fifth Inning.....	21.50		21.50			
Fleet.....	24.55			24.55		
Golden Wheel.....	24.95				24.95	
Headliner.....	10.00		10.00			
Lucky Strike.....	1.00			1.00		
New Rocket.....	10.00			10.00		
Palm Springs.....	18.01			18.01		
Paramount.....	19.96		75	19.21		
Pick Em.....	16.00		16.00			
Racing Form.....	5.00				5.00	
Scoop.....	20.00	.02	19.98			
Skipper.....	37.68				37.68	
Spottem.....	40.02		40.02			
Sprint.....	5.00				5.00	
Triumph.....	37.44	37.44				
Variety.....	22.50		22.50			
Worlds Fair.....	5.01			5.01		
	780.82	38.93	161.77	203.37	367.69	9.06

463 And on, to wit, the 11th day of July, A. D. 1940 came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Exhibit No. 16, in words and figures following, to wit:



465 And on, to wit, the 11th day of July, A. D. 1940
came the Plaintiff by its attorneys and filed in the
Clerk's office of said Court its certain Exhibit No. 17 in
words and figures following, to wit:

ANOTHER NEW SMASH HIT BY BALLY!

BUMPER

5-BALL Novelty SENSATION

NO PINS! NO POCKETS! Just pure undiluted action and suspense! Flip the ball off the plunger—watch it race to the top of the field—then bump—bump—bump from spring to spring—waving drunkenly down the field—socking one spring two or three times—staggering all over the field—colliding with one spring after another! Every bump a kick—for the player! **EVERY BUMP REGISTERS ON LIGHTUP TOTALIZER!** Awards for HIGH SCORE and LOW SCORE! Dizzily different! Fatally fascinating! Furiously fast!

**ATTRACTIVE
NOVELTY - TYPE
PRICE**

*A gold mine for novelty territory
— and location tests prove it
takes in the money **RIGHT**
ALONGSIDE OF PAYOUTS!
Get in on the new novelty boom
started by **BUMPER**. Order
at least a sample today!*



BALLY MANUFACTURING CO.
260 BELMONT AVENUE
CHICAGO



John S. Fargher

Eastern Distributor

412 W. 41st St., New York, N.Y.



NOTES FROM JAB-2

REDAWN

THE NEW YORK CITY

MOBILE

571 And on, to wit, the 11th day of July, A. D. 1940
came the Plaintiff by its attorneys and filed in the
Clerk's office of said Court its certain Exhibit No. 18 in
words and figures following, to wit:

A Complete Line of Games for Every Purpose-Every Territory!

LIVE WIRE

Brand new 5 ball novelty game. Uses large 1 1/4" steel ball. Seating is for two and we think it will be the next game of the show.

RUGBY

One of the most popular novelty games on the market, now with 2, 3, 4 and 5 balls. No holes in the board. Balls contact miniature football player.

ROLA SCORE

New 1937 model of Chicago Coin's popular 1934 Rola Score game. Pressure and normal 9 ft. bowling game. Pressure and see the new 1937 model. It will earn more money for you.

HOME RUN

3 ball baseball novelty game without holes. Easy to shoot balls. Features from spring to spring recording the hits on the light up face.

BUMP-A-LITE

A new 1 ball pool table. Deluxe. Also a fully new principle of play and aiming. See this attraction without fail.

SWEET '21

Chicago Coin's popular 1 ball odds having and payout table. Real like a pick eleven. Adapted to a money making payout table.

IF NOT

ATTENDING THE SHOW

WRITE AT ONCE

FOR FULL

PARTICULARS



While in town we invite you to visit our factory for a complete display of these and other new games.

CHICAGO COIN CORP. 1725 DIVERSEY BLVD. CHICAGO, ILLINOIS

Plaintiff's Exhibit 18

10

10

[illegible]

10

1

12

573 And on, to wit, the 11th day of July, A. D. 1940 came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Exhibits No. 19 (page 96) and No. 20 (page 87) in words and figures following, to wit:

Take the games that Took the Show!

PAMCO "HI-DE-HO" PAMCO "RACES"

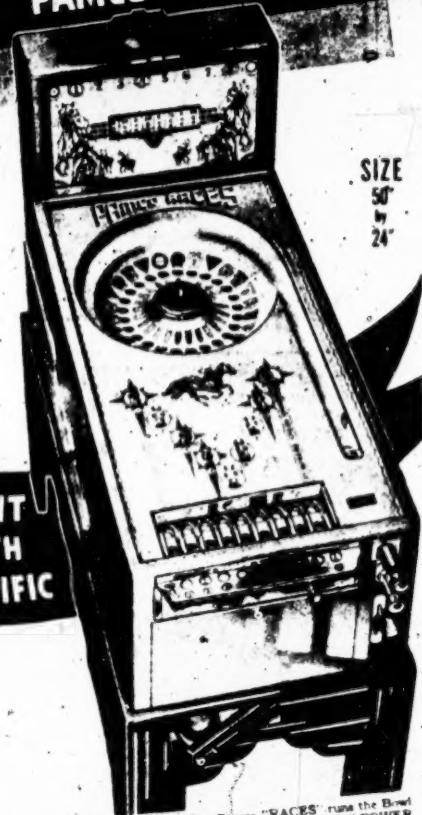


"HI-DE-HO"

The new bumper bump game that plays both sides against the middle of the line up board. Bumping ball animation from top to bottom. The Champion of the Show!

Pamco "RACES"

Smart new 1 ball payout table with famous bowl type scoring. Odds of 10 to 150 on Win - Place and Show. They went for Pamco RACES!



SIZE
50"
by
24"

PROFIT
WITH
PACIFIC

IT'S A
PACIFIC
YEAR

Furnished in bumper type Novelty Model with two-way scoring - plus the popular idea of matching lights. In the Payout and Ticket Models also!
PAYOUT, \$139.50 • TICKET, \$149.50 • NOVELTY, \$84.50

With 9 cents each play - Pamco "RACES" runs the Bowl on 1 Odds Commutator up into MORE MONEY POWER than ever before!
PAYOUT . . . \$189.50 • TICKET . . . \$199.50

Pacific Amusement Mfg. Co.

Get Advance Deliveries from
Your Nearest Distributor at Once!

4223 W. LAKE STREET, CHICAGO, ILLINOIS
1320 S. HOPE STREET, LOS ANGELES, CALIF.

Plaintiff's Exhibit 20

**HOT FROM the SHOW
AND RARIN' TO GO!**



**LIVE
WIRE**



**THE 5 BALL
NOVELTY GAME
WITH!
BUMPER SPRINGS
AND
MULTIPLE ODDS!**

**7 REWARD HOLES-
POSSIBLE \$2.00 AWARD**

4 "live-wire" springs, when contacted, register on an illuminated backboard. The fifth "live-wire" spring, located in the middle, automatically illuminates all 4 "live-wire" lights. Seven holes on the lower end of the playing field offer big award possibilities, ranging from 10c to \$1.00, on only 1 ball. An award cannot be earned unless all 4 "live-wire" lights are on.

CHICAGO COIN CORPORATION

1725 Diversey Blvd. CHICAGO, ILL.

**\$59⁵⁰
F.O.B.**

576 And on, to wit, the 11th day of July, A. D. 1940
came the Plaintiff by its attorneys and filed in the
Clerk's office of said Court its certain Exhibit No. 21 in
words and figures following, to wit:

"I'M SITTING PRETTY ON BALLY'S BUMPER"

THE NOVELTY HIT OF THE 20TH CENTURY!

THOUSANDS of operators are "sitting pretty" on Bally's BUMPER—the smash novelty game with pay-outting power—the game that put many operators back in the big money!

Only BUMPER has the dynamic action due to spring-tempered "naked" wire—carefully tested to strict Bally specification to insure maximum "bounciness" and projection power! Only BUMPER has the "blow" action—Totalizer, flashing a "blow" score—as the big metal ball goes into GIANT COIL SPRINGS—a ball that climbs higher and higher during each game—and pulls player excitement up to the fever pitch of each play! Only BUMPER has forty dollars earning power! Get your share by getting BUMPER now!

NO PINS!
NO POCKETS!



\$64⁵⁰
F.O.B. CHICAGO

At this particular location is running in neighborhood of \$30.00 to \$40.00 a day on the BUMPER and is one of the new. Not a day goes by but we receive special calls asking for more like the one in this location.
C. C. Rockford, Ill.

44 IN. BY 22 IN.



New **ROVER**
1 SHOT • CHANGING ODDS • PAYOUT

*Guaranteed NEVER LESS
THAN 2 SELECTIONS PER GAME!*
Up to 7 Selections Possible

First, second, third and fourth place winners, symbolized by various stages in a cruise from Europe to America, give play possibility of 28 winners \$1000 to top odds—and that FOUR WINNERS GUARANTEED feature has proven the most money maker come on in years! Order ROVER today while you can still get quick delivery!

A BALLY GAME
For Every Location

FAIRGROUNDS

1-Shot Changing Odds Payout

with

MULTIPLE COIN CHUTE

4 Bumps per Game

RAY'S TRACK

Payout Race Game

RELIANCE

Payout Race Game

BALLY BABY

3 Counter Games in One

PREAKNESS

1-Shot Changing Odds Payout



BALLY MANUFACTURING COMPANY
2640 BELMONT AVENUE
CHICAGO, ILLINOIS

Model D

U.S. Pat. 2,145,141

577

Printed & Published by

THE NEW YORK TIMES



THE NEW YORK TIMES
PUBLISHED DAILY
EXCEPT ON SUNDAYS
AND HOLIDAYS
WHEN IT IS PUBLISHED
ON MONDAY
AND TUESDAY
AND ON WEDNESDAY
AND THURSDAY
AND FRIDAY
AND SATURDAY
AND SUNDAY
AND HOLIDAYS
WHEN IT IS PUBLISHED
ON MONDAY
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AND ON WEDNESDAY
AND THURSDAY
AND FRIDAY
AND SATURDAY
AND SUNDAY
AND HOLIDAYS

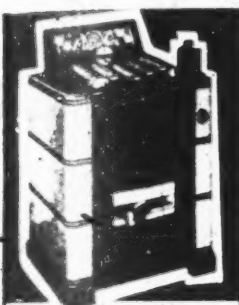
THE NEW YORK TIMES

PRINTED & PUBLISHED BY

THE NEW YORK TIMES

PRINTED & PUBLISHED BY

578 And on, to wit, the 11th day of July, A. D. 1940
came the Plaintiff by its attorneys and filed in the
Clerk's office of said Court its certain Exhibit No. 22 in
words and figures following, to wit:



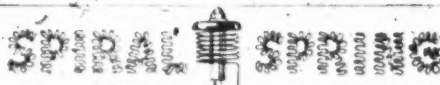
PARADISE

The "Gold Mine"
Full
"Games"

SALES FROM 5¢
TO \$1.25 ON-
WARD PLAY

AS LOW IN
COST MODEL

Higher
than any
ever
produced



1 BALL ODDS-CHANGING PAYOUT GAME

Also in 2, 5 or 10 Ball
Models Easily Converted
back to 1 Ball Model

As complete as a billiard table, it is a game of skill and chance. The player can win or lose at any time. The game is played on a table with a ball and a pocket. The player can win or lose at any time. The game is played on a table with a ball and a pocket.

As the ball moves toward the pocket, the player can win or lose at any time. The game is played on a table with a ball and a pocket.

It is a game of skill and chance. The player can win or lose at any time. The game is played on a table with a ball and a pocket.

It is a game of skill and chance. The player can win or lose at any time. The game is played on a table with a ball and a pocket.

It is a game of skill and chance. The player can win or lose at any time. The game is played on a table with a ball and a pocket.

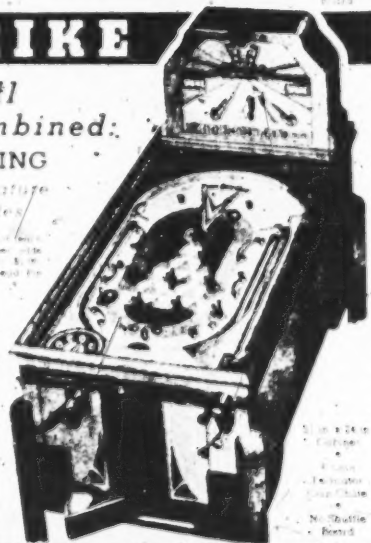


TEN STRIKE

Outselling all
Payout Tables Combined:
2-BALL ODDS-CHANGING

Payout Table Enticing Miniature
Ten Pins Instead of Payout Holes

It is a game of skill and chance. The player can win or lose at any time. The game is played on a table with a ball and a pocket.



IMMEDIATE DELIVERIES

Best of the KEENEY Distributors

J. H. KEENEY & CO.

100 CALUMET AVE CHICAGO, ILL.

WAIT FOR THE NEW KEENEY SPIRAL SPRING NOVELTY GAME!

CONCLUSIONS

12. 10/11/1974

2000 JAN 1 11:00 AM

110

1891

10/10/10

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

RECEIVED STATIONERY

L. B. KEENE & CO.

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

580 And on, to wit, the 11th day of July, A. D. 1940
came the Plaintiff by its attorneys and filed in the
Clerk's office of said Court its certain Exhibit No. 23 in
words and figures following, to wit:

Plaintiff's Exhibit 23

New Novelty Baseball Game Sensation!

HOME RUN

**BUMPER
SPRING
GAME WITH
UMPIRE AND
EXTRA RUN
FEATURES!**

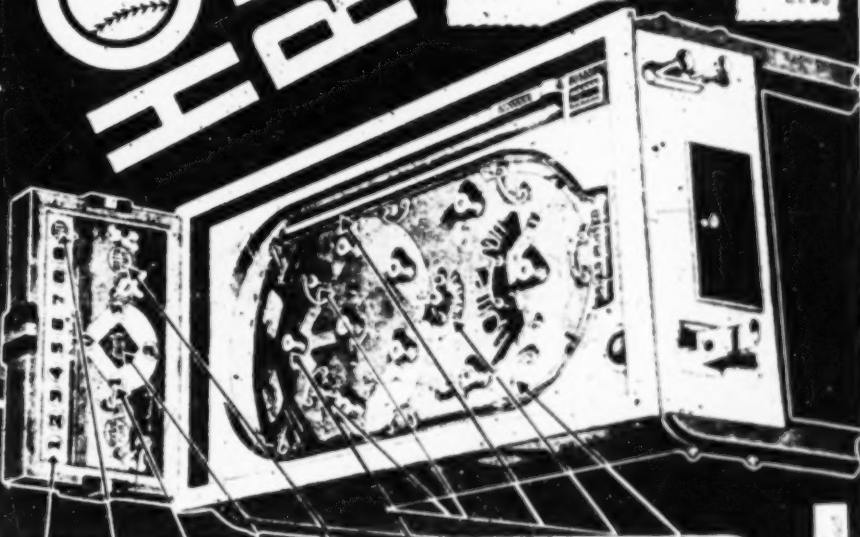


AN APOLOGY and We were swamped with orders for a "THANK YOU!" Accordingly, we apologize for any delay you may have experienced in securing your Home Run. However, we are now working day and night and have stepped up production so that we can promise 48-hour shipments on most orders.

CHICAGO COIN Corp.
1725 DIVERSEY BLVD. CHICAGO, ILL.

BUMP-A-LITE \$119.⁵⁰

Brand new one shot "Greatest Street Bumper" type game. 10" x 14" x 14" in size. Includes all parts and instructions. 100% CHICAGO MADE. TAX PAID.



● **RUNS SHOWN IN LITES**

Total runs made are indicated in lites on the back rack.

● **NEW TILT-LITE**

If Home Run is tilted, the word TILT flashes on back rack.

● **LITE TRAVELS BASES**

Every bump of the ball advances lite around in field diamond.

● **UMPIRE FEATURE**

When umpire lite is on, player adds 10 points to free games! No more free games!

● **EXTRA BASE FEATURE**

Player adds extra run to total score for each of these 2 lites.

● **BUMPER SPRINGS**

12 colorful, exclusive Chicago Coin bumper springs on the field.

● **EXTRA BASE BUMPER**

Has corresponding lites on back rack in added ball for greens.

● **LIVE COIL SPRINGS**

These can use multiple hits of ball against bumper springs.

● **UMPIRE SPRING**

Green suspense to every ball hit. Has corresponding lite on rack.

● **DOUBLE POST SPRINGS**

These also cause multiple hits of ball against bumper springs.

62⁵⁰

TAX PAID FOR CHICAGO

582 And on, to wit, the 11th day of July, A. D. 1940
came the Plaintiff by its attorneys and filed in the
Clerk's office of said Court its certain Exhibit No. 24
(page 86) Exhibit No. 25, (page 93) and Exhibit No. 26
(page 98) in words and figures following, to wit:

New Novelty Baseball Game Sensation!

SPRING SHOWN IN LITER.
This game made its debut in 1936 and has since then been a sensation in every corner of the country.
SAVES YOUR LIFE!
When you hit the ball, the ball strikes the spring and the ball is sent back to the pitcher.
5 BALL SKILLS BASES
From every of the balls, you can get 5 bases. The ball is sent back to the pitcher.
EMPIRE FEATURE
When you hit the ball, the ball strikes the spring and the ball is sent back to the pitcher.
EMPIRE BASE FEATURE
When you hit the ball, the ball strikes the spring and the ball is sent back to the pitcher.
EMPIRE SPRINGS
When you hit the ball, the ball strikes the spring and the ball is sent back to the pitcher.
EMPIRE BASES
When you hit the ball, the ball strikes the spring and the ball is sent back to the pitcher.
EMPIRE SPRINGS
When you hit the ball, the ball strikes the spring and the ball is sent back to the pitcher.
EMPIRE BASES
When you hit the ball, the ball strikes the spring and the ball is sent back to the pitcher.



HOME RUN

BUMPER SPRING GAME WITH UMPIRE and EXTRA RUN FEATURES

THOUSANDS UPON THOUSANDS

Home Run games have been sold in thousands and are still selling today. The novelty game of the year and a year of big profit making.

CHICAGO COIN Corp.
1725 DIVERSEY BLVD. CHICAGO ILL.

METROPOLITAN NEW YORK DISTRIBUTOR
BUDIN SPECIALTIES, INC.
100 So. Duane Ave. Brooklyn, N. Y.

62.50

COME IN AND SEE THE BASEBALL SENSATION!

HOME RUN

BUMPER BASEBALL NOVELTY GAME!

62.50

A. F. SAUVE CO.
DIST. 1045
1002 & GRAND RIVER AVE. E. ST. LOUIS, MISS.

a Proven PROFIT MAKER

HOME RUN

5 BALL BASEBALL NOVELTY GAME

Ready for Delivery **\$62.50**

AVON NOVELTY SALES CO.
1307 EUCLID AVENUE CLEVELAND, OHIO

a Proven PROFIT MAKER

HOME RUN

5 BALL BASEBALL NOVELTY GAME

Ready for Delivery **\$62.50**

NATIONAL MACHINE CORPORATION
1000 E. BALTIMORE MD.

COME IN AND SEE THE BASEBALL SENSATION!

HOME RUN

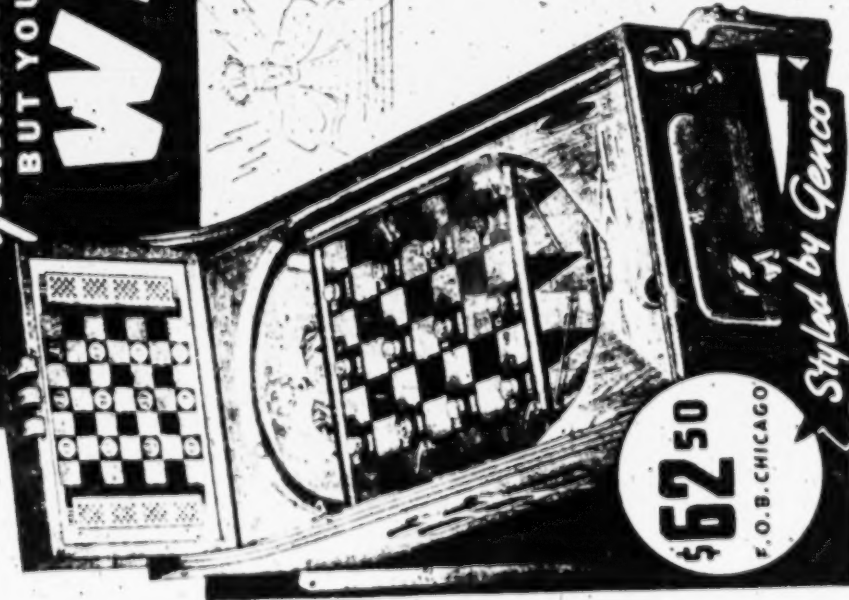
BUMPER BASEBALL NOVELTY GAME!

62.50

AR COMPANY

Plaintiff's Exhibit 25

You Went Wild About Kings in 1935
 BUT YOU'LL RAVE ABOUT GENCO'S
WIZARD



THIS IRRESISTIBLE NEW BUMPER TYPE

ELECTRICAL CHECKER GAME

Attracts Coins as if by Magic

"WIZARD" is easier to play than checkers, and much more exciting. A 5-ball game on a magic checker-board. Each ball hitting a checker registers automatically on a corresponding lighted score-board. Any ball following a path to the king row lights a small board showing how the king was made.

Those who were lucky enough to have Genco's 1935 champion "Kings" will find "Wizard" a more thrilling game and a better money-maker. "Wizard" is an improved new bumper type electrified checker game. It's the extra profit side. Write or wire Genco, Inc.

★ Electrified, Lighted Scoring Rack
 ★ Electropak Equipped
 ★ 5 Steel Balls Keep Fun Going
 ★ Beautifully Styled Cabinet
 ★ Attractively Decorated Playing Field
 ★ Tested Payment Cards

Size 22 in. by 46 in.

GENCO, INC.

2621 N. Ashland Ave., Chicago, Ill.

Announcing BALLY BOOSTER



WRITE
for
PRICE

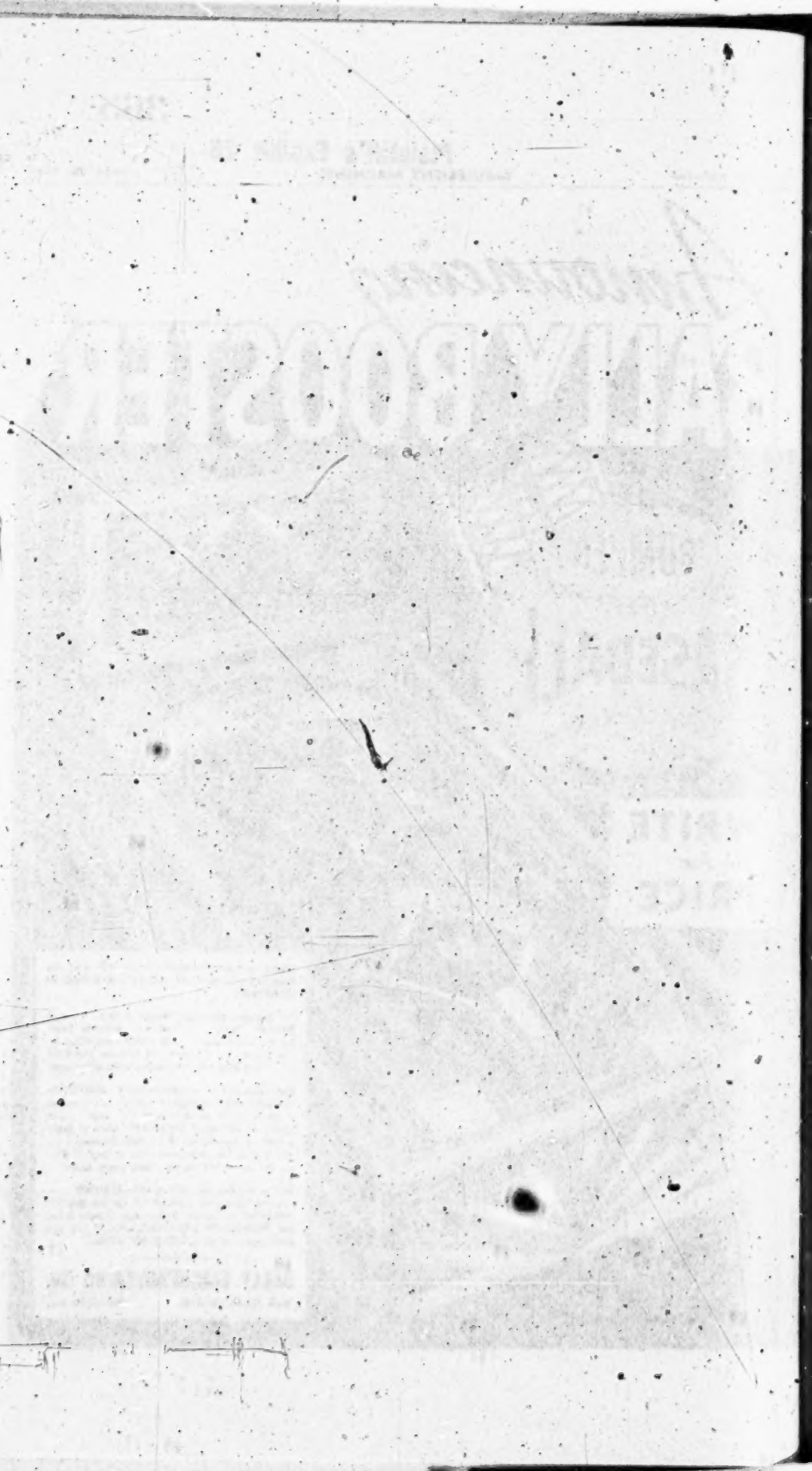
"Spring is here! Baseball's in the air! And the Bumper boom starts all over again with BALLY BOOSTER!"

It's got gorgeous Bally Bumper Action... real Baseball Thrills... "players" running base2 on the backboard... 16 RUNS POSSIBLE in one game... a bigger and roomier play field... and a host of extra money-making features.

For example: 2 night-balloons: ELECTRIC FLICKER with "triple play" action... it scores a run if you've got a man on any base... It scores an additional HOME RUN when it sends 2 ball up, against the Home Run Bumper and it gives the player 50c for every ball flin by the flin and on one "back" down again!

You're making big money with BUMPER but "come on! I want nothing" till you get BALLY BOOSTER to work! Order your sample today for IMMEDIATE DELIVERY. You'll cop the profit premium with BALLY BOOSTER!

BALLY MANUFACTURING CO.
2641 DE MONT AVE. CHICAGO, ILL.



493 And on, to wit, the 11th day of July, A. D. 1940 came the Plaintiff by its attorneys and filed in the Clerk's office of said Court its certain Exhibit No. 30 in words and figures following, to wit:

494 " **PLAINTIFF'S EXHIBIT 30.**

390

DEPARTMENT OF COMMERCE

United States Patent Office

To all persons to whom these presents shall come, Greeting:

This Is To Certify that the annexed is a true copy from the records of this office of the File Wrapper and Contents, in the matter of the

Pending Application of

Ellsworth M. Fitch,

Filed October 7, 1939,

Serial Number 298,347,

for

Improvement in Game Apparatus.

In Testimony Whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the City of Washington, this thirteenth day of December, in the year of our Lord one thousand nine hundred and thirty-nine and of the Independence of the United States of America the one hundred and sixty-fourth.

Conway P. Coe

Commissioner of Patents.

Attest:

D. E. Wilson

Chief of Division.

368

Transcript of Testimony.

495

1456

Number (Series of 1935)
298347Patent No.
Dated 57/43/23

1939

Div. 6237

(Ex'r's Book) 273
117-1-FName Ellsworth M. Fitch
of Boonville
State of New York
Invention Game Apparatus

Original		Renewed
Application Filed Complete	Oct 7, 1939
Parts of Application Filed { { { {	Petition, Specification, Oath, First Fee \$30, 1 sheet Drawings,	Oct 7, 1939

Examined and passed for Issue		Reexam'd and passed for Issue
..... 193	 193
..... Exr. Div. Exr. Div.
Notice of Allowance..... 193		Notice of Allowance..... 193
..... By Commissioner. By Commissioner.
Final Fee..... 193		Final Fee..... 193

Attorney *Clarence E. Threedy, 111 West Washington St*
*Chicago Ill*Substitute Attorney—Callard Livingston, 611½ Arlington
Place, Chicago, Illinois.

Associate Attorney

No. of Claims Allowed Print Claims in O. G.
Class
Title as allowed(In left-hand margin) Division of App., No.
filed 19

496 (Stamp) Mail Division Oct 7 1939 U. S. Patent
Office. Oct-7-39 066176 B 2 Check-30.00

Branch Office
Washington, D. C.

Clarence E. Threedy
Patent Lawyer

Patents
Trade-Marks
Patent Litigation
Unfair Competition Causes

Leslie M. Hansen
Mech. Engineer

Clarence E. Threedy
Attorney at Law
111 West Washington Street
Chicago

Phone Randolph 2788

October 2, 1939

The Commissioner of Patents
Washington, D. C.

Sir:

Re: Patent application of
Ellsworth M. Fitch on
Game Apparatus (Case 1456)

I am enclosing herewith for filing the above application,
including one sheet of drawing. The Government filing
fee of \$30.00 is covered by the accompanying certified
check.

Very truly yours,

Clarence E. Threedy

CET:KY
Enc.

298347-1/2

497

(Case No. 1456)

298347

(Stamp) Mail Division Oct 7 1939 U. S. Patent
Office

PETITION.

To the Commissioner of Patents:

Your petitioner, Ellsworth M. Fitch, a citizen of the
United States, and a resident of Boonville, in the County
of Oneida, and State of New York, whose post office ad-
dress is Boonville, New York prays that Letters Patent

may be granted to him for improvements in a Game Apparatus set forth in the annexed specification.

And he hereby appoints Clarence E. Threedy, Register No. 11,702, whose post office address is 111 West Washington Street, Chicago, Illinois, his attorney, with full power of substitution and revocation, to prosecute said application, to make alterations and amendments therein, to sign his name to the drawing, to receive the Letters Patent, and to transact all business in the United States Patent Office connected therewith.

Signed at Boonville, in the County of Oneida, and State of New York, this 21st day of Sept., 1939.

Ellsworth M. Fitch

SPECIFICATION.

To All Whom It May Concern:

Be It Known that I, Ellsworth M. Fitch, a citizen of the United States, residing at Boonville, in the County of Oneida and State of New York, have invented new and useful improvements in a Game Apparatus of which the following is a specification:

298347—1

498 This invention relates to amusement apparatus and has as its principal object the provision of a game including a ball rolling surface or table, upon which are arranged a plurality of objects adapted to be struck by a ball projected over the board, there being score indicating mechanism associated with the objects and adapted to register various score values depending upon which of the objects is struck.

A further and more particular object is the provision of a game of the class described in which the objects are in the nature of tenpins arranged on the play-board in the customary triangular array and each tenpin having associated therewith a switch adapted to actuate score indicating means when the pin is struck by a ball projected onto the board.

—2—

298347

499 Another object is the provision of novel switch means for association with the objects or tenpins and each

including movable contact means positioned on the table or playboard so as to be struck by a ball to close a signal circuit, the movable contact means thus constituting a resilient bumper, as well as a switch element.

Still another and more detailed object is the provision of a bumper switch including relatively movable and stationary contact means adapted to be mounted on the ball rolling table with the movable contact means yieldably urged out of contacting engagement with the stationary contact means and positioned so as to be struck by a ball rolling on the table for movement into contacting engagement

with the stationary contact means.

Other objects, advantages and novel aspects of the invention reside in certain details of construction as well as the cooperative relationship of the component parts

of the illustrative embodiment described, hereinafter in view

of the annexed drawing, in which:

Fig. 1 is a perspective of an amusement apparatus incorporating the novel features of the invention;

Fig. 2 is a perspective of one form of bumper switch with portions cut away and including a circuit diagram

in connection with the switch;

Fig. 3 is a sectional detail of a modified form of bumper switch;

Fig. 4 is a sectional detail of another modified form of bumper switch.

—3—

298347

500 A preferred form of game apparatus in which the novel features of the invention have been incorporated is

illustrated in Fig. 1 and includes a boxlike housing 10 having a ball rolling surface or table 11 arranged in its upper region at a slight inclination so as to cause balls to move from the upper (left-hand) end thereof toward the lower right-hand end for movement into an exit 12. The ball rolling table or playboard is usually disposed beneath a glass cover when the apparatus is arranged for operation

by coin-controlled means such as a coin slide 13.

By depressing a plunger 14, a ball 15 will be

elevated from beneath the playboard into position before a projecting plunger 16 which the player retracts to tension its spring for subsequent release to project the ball along an alley 17 to the upper end of the board, for subsequent movement in various directions over the latter, dependent upon the force employed in projecting the ball, the object being to strike as many of the targets or objects 18 as possible.

In the present arrangement, the targets or objects 18 are preferably in the form of bowling pins such as illustrated in Figs. 2 and 3, the pins being arranged in the customary manner, that is, in a triangular array, and the player's score depending upon the number of pins struck during any given period of play.

—4—

298347

501 To enhance the interest of the game, the tenpins or objects 18 are mounted resiliently so as to constitute

yieldable bumpers adapted to cause deflections of balls striking the same in various directions, so that the path of the ball will be irregular and enlarge the possibility of striking a number of pins or bumpers before lodging in the exit 12. As will be explained in greater detail hereinafter, each of the bumpers or tenpins 18 is associated with switch means for actuating some form of score indicating mechanism

arranged in a housing 19 at the upper end of the table and including a translucent panel 20 provided with score indicating numerals or other indicia 21 adapted to be illuminated in a certain manner when one or more of the bumpers is struck.

In one of the preferred constructions of bumper switch shown in Fig. 2, there is provided a movable contact

means including a member 18 in the form of a bowling pin (other forms being optional) secured to the upper end of a rod 23 passing through an enlarged opening 25 in the game board

or table 11 for engagement as at 25 with a spring 26 anchored by means of a clip 27 to the underside of an insulated block 28.

There being an extension of the pin 23 in the form of a resilient

wire 23' which may be formed integrally as a part of the spring 26 or a separate piece of material affixed to the lower end of pin 23.

The bumper switch further includes stationary contact means in the form of a U-shaped metal bracket 29 secured as at 30 to the block 28 and having an opening 31 in its bight portion arranged approximately concentrically of the lower end of the wire 23' of the movable contact means. The spring 26 constitutes a resilient means which yieldably urges the movable contact means to dispose the wire 23' in a normal position out of electrical contact with the margins of the hole 31 in bracket 29.

-5-

298347

502 The bumper switch is mounted on the table or playboard 11 by means such as screws 32 with the part 18 of the movable contact means projecting freely above the board in a position to be struck by a ball, with a resultant displacement of the contact member 23' thereof from its normal open-circuit condition into contacting engagement with the marginal parts of the hole 31, thus establishing an electrical circuit through the bracket 29, wire 23', spring 26 and clamp 27. The resiliency of the movable contact means will usually cause the ball to be deflected or rebounded more or less energetically, with the result that the direction of movement of the ball may be changed numerous times before arriving at the exit 12.

A control circuit adapted to be actuated by the bumper switch is illustrated in Fig. 2 and includes a source of power such as the battery 40 connected via conductor 41 to the clamp terminal 27 of the movable contact means. The other terminal of the bumper switch, that is, the bracket 29, is connected by conductor 42 to one terminal of a holding relay 43, and the relay circuit is completed from the remaining terminal by conductor 44 returning to the battery.

Thus, when the movable contact means is displaced, as by a ball striking pin 18, the circuit through conductors 41 and 42 is completed through wire 23 and bracket 29 to energize relay 43, causing the same to pull up and the movable contact

45 thereof to engage stationary contact 46 which is strapped to conductor 44, so that a locking circuit is completed via conductor 47 through a normally closed switch 55 around the bumper switch, thus maintaining the

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503 relay in energized or locked condition to be released only when contact switch 55 is broken.

A master time switch schematically indicated at 48, is normally open and is arranged to be closed at the start of the game by action of the coin slide 13 in a manner usual in games of this general type.

When the relay 43 pulls up, its movable contact 50 connects battery through a stationary contact 51 and conductor 52 to a stepping solenoid 57, the remaining terminal of which is connected to a feeding conductor 56 from the battery so that solenoid 57 will be energized to cause the wiper 58 to move to the next contact of a series 59. When the armature 54 of solenoid 57 is pulled up, to the left Fig. 2, the free end of a pivoted arm 53 will strike one contact of switch 55 thereby breaking circuit through conductor 47 to release holding relay 43 and return contacts 45 and 50 to normally open position.

As a result of the stepping of the solenoid 57 in the manner aforesaid, a connecting wiper 58 will come to rest ultimately on one of a group of contacts 59 connecting with one terminal of one of the lamps in the bank 60, which

are arranged behind the panel 20. The return circuit from the bank of lamps is established through common connection to the feeder conductor 41a. Thus, in the example illustrated, the first lamp 60a of the bank 60 would be in circuit and indicates that a score has been made.

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504 A modified form of bumper switch is illustrated in

Fig. 3 and includes a bowling pin 18a constructed of metal and attached to the playboard 11 by means of a metal

pin 65 threaded into the bottom thereof and passing through

an insulating bushing 66 to the underside of the playboard where it is held by a nut 67. The bushing 66 may be rigidly

secured to the board by means such as screws 68, the metal

bowling pin 18a thus constituting a relatively stationary contact means on the playboard. The movable contact means

in this embodiment is in the form of a coil spring 69 arranged with its convolutions loosely surrounding the metal

pin 18a and normally out of contact therewith, the spring being

held in this condition by a downturned end portion 70 extending

through a ferrule 71 fixed in the table or playboard 11.

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505 This form of bumper switch may be substituted

in the circuit of Fig. 2 simply by connecting the conductor

41 with the nut 67, and conductor 42 with the end of the spring 70 in ferrule 71. When a ball strikes the movable

contact means 69, the same will engage the metal pin 18a and close the energizing circuit for relay 43, with a

consequent series of operations such as heretofore described.

In Fig. 4 is illustrated still another modified

form of bumper switch wherein the stationary contact means is in the nature of a ferrule or like metal member 80, secured to the board as at 81 and having an opening 82 into which projects the downturned end portion 83 of a movable contact means including the coil spring 84 mounted on the upper side of the playboard upon a metal post 85 to which it is secured by means such as the coiled opposite end portion 86 of the spring gripping the upper end of the post, which preferably may be threaded.

From the lower end of the post, projects a mounting pin 87 engaging a retaining nut 88 on the underside of the bore, the juncture between the pin and post providing a shoulder portion 89 which is drawn up tightly against a washer 90 by action of the retaining nut, so that the post is rigidly seated on the board. The spring 84 of the movable contact means is biased so that the contacting end portion 83 is normally disposed out of engagement with the ferrule or stationary contact 80.

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506 As in the case of the embodiment of Fig. 3, the bumper switch of Fig. 4 may be substituted in the circuit of Fig. 2, simply by connecting conductor 41 to the nut 88 and conductor 42 to the ferrule 80, the circuit for relay 43 being closed when a ball strikes the spring portion 84 vigorously enough to move the downturned end 83 into electrical contact with the margins of the hole 82 in the stationary contact 80.

The various advantages and objects of the invention may be accomplished by modifications of the particular embodiment specifically described herein, and it is intended that the appended claims shall include all equivalent arrangements fairly coming within their call.

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507 Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. In a game including a ball rolling table,

the combination with said table of a bumper switch comprising relatively movable and stationary contact means on said table with said movable contact means yieldably urged by resilient means out of electrical contact with the stationary contact means and further disposed to be engaged and moved by a ball

to effect electrical contact with said stationary contact means, said contact means being adapted to be connected in a control circuit associated with said game, and the resilient urging means aforesaid constituting said movable contact means

a bumper adapted to effect rebound of balls on said table.

2. A bumper switch for use in a game of the type including a ball rolling surface, said switch comprising a metal bracket member, a coil spring anchored at one end on an insulated member secured to said bracket member, a contact

pin extended through said spring and attached to the remaining end thereof, said bracket having an opening through which said

pin normally extends, said spring being arranged to dispose said pin out of contacting engagement with marginal portions

of the opening, said bracket being adapted for mounting in

said game with a portion of said pin projecting relative to said ball rolling surface to be struck by a ball to effect movement of the pin into circuit closing engagement with marginal portions of said opening.

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508 3. A bumper switch for use in game apparatus of the type including a ball rolling surface, said switch comprising a conductive target member and means for mounting

the same in a position relative to said surface to lie in the path of balls rolling thereon, and a coil spring having

one lower end portion anchored adjacent said target member with its convolutions freely embracing the latter and normally biased out of contact therewith, said spring being disposed to be struck by a ball for movement against said target member to complete a circuit through the same and said spring.

4. A bumper switch for use in amusement apparatus of the type including a ball rolling table, said switch comprising a conductive standard mounted to project in the path of balls moving on said table, a spring helix having one end portion secured to an end portion of said standard above said table so as to freely surround the standard and be disposed in the path of balls moving on said table for resilient displacement in directions approximately toward the standard, and a stationary contact element mounted on said table and including a metal portion provided with an opening and adapted for connection in a control circuit, said spring having a downturned end portion projecting into said opening in the metal portion of the stationary contact and normally disposed out of contacting engagement therewith but adapted to engage marginal portions of said opening when the spring is struck by a ball as aforesaid to close a circuit through said stationary contact element and said standard.

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509 5. In a ball rolling game, a substantially

horizontal table, the combination with said table of a substantially vertical support thereon carrying a coil spring coiled around the support and including a down-

turned extension, said spring constituting one conductor member of a switch disposed in an electric circuit, the other member of the switch comprising a conductor ferrule

carried by and embedded in the table and adapted to be engaged by said extension which depends into said ferrule, said members being normally gapped apart to hold the circuit

open but adapted to close momentarily to establish the circuit when a ball rolling on the table bumps the spring.

6. In a ball rolling game, a substantially horizontal table, the combination with said table, of a substantially vertical standard thereon carrying a coil spring coiled around the standard and having a leg extending

downwardly into an opening formed in the board, said spring and support constituting one side of a circuit closer disposed in an electric circuit, the other side of the switch comprising a conductor disposed in said opening,

said spring when bumped by a ball rolling on the table being

movable to engage the leg with the conductor in said opening

momentarily to establish the circuit.

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510 7. In a ball rolling game, a substantially

horizontal table, the combination with said table, of a substantially vertical standard thereon carrying a coil spring coiled around the standard and having a leg extending

downwardly into an opening formed in the board, said spring constituting one side of a circuit closer disposed in an electric circuit, the other side of the switch

comprising a conductor ferrule carried by the table within said opening, said ferrule including an inturned annular flange,

said spring when bumped by a ball rolling on the table being

movable to engage the leg with the flange momentarily to establish the circuit.

8. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination

with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

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511. 9. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and a conductor ferrule embedded in an opening formed in the table

at a point spaced from the standard and engageable by a portion of the spring extended into said ferrule when the spring is flexed to cause closing of the aforementioned circuit.

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512 In testimony whereof I affix my signature.
Ellsworth M. Fitch

OATH.

State of New York }
County of Oneida } ss.

Ellsworth M. Fitch, the above-named petitioner, being sworn, deposes and says that he is a citizen of the United States and a resident of Boonville, in the County of Oneida, and State of New York; and that he verily believes himself to be the original, first, and sole inventor of the improvement in a Game Apparatus described and claimed in the annexed specification; that he does not know and does not believe that the same was ever known or used before his invention or discovery thereof, or patented or described in any printed publication in any country before his invention or discovery thereof, or more than two years prior to this application, or in public use or on sale in the United States for more than two years prior to this application; that said invention has not been patented in any country foreign to the United States on an application filed by him or his legal representatives or assigns more than twelve months prior to this application; and that no application for patent on said improvement has been filed by him or his representatives or assigns in any country foreign to the United States.

Ellsworth M. Fitch

Subscribed and sworn to before me this 21 day of *July*,
Sept., 1939.

(Seal)

Jackson Capron
Notary Public.
298347—16

513 (Stamp) Mail Division Oct 7 1939 U. S. Patent
Office.

IN THE UNITED STATES PATENT OFFICE

In re application of
Ellsworth M. Fitch
For Improvements in
Game Apparatus

AFFIDAVIT UNDER RULE 94.

State of New York }
County of Oneida } ss.

I, Ellsworth M. Fitch, being duly sworn, depose and declare that I am the applicant named in the annexed application for Letters Patent for improvements in a game apparatus including, among other novel features, certain bumper switches;

That I am aware of the existence of U. S. Letters Patent 2,109,678, filed January 12, 1937, and granted March 1, 1938 to N. A. Nelson of Chicago, Illinois;

That for purposes of effecting a declaration of interference between my said application and said Letters Patent to Nelson, I make this affidavit and declare that I made the invention disclosed and claimed in my said application prior to the filing date of said patent to Nelson, that is to say, prior to January 12, 1937.

Further affiant sayeth not.

Ellsworth M. Fitch

Subscribed and sworn to before me this 21 day of Sept., 1939.

(Seal)

Jackson Capron,
Notary Public.
298347-17

514 (Stamp) Mail Division Oct 7 1939 U. S. Patent Office.

IN THE UNITED STATES PATENT OFFICE

In re application of
Ellsworth M. Fitch
For Improvements in
Game Apparatus

COMPARISON OF CLAIMS UNDER RULE 94.

Applicant having copied all of the claims of U. S. Patent No. 2,109,678, granted to N. A. Nelson, March 1, 1938, on an application filed January 12, 1937, and applicant having submitted herewith his affidavit under Rule 94 that he made the invention of said claims prior to the filing date of said Nelson patent and for the purpose of effecting a declaration of interference between the present application and said patent, as required by Paragraph 3, Rule 94, the claims of the Nelson patent numbered 1 through 5 inclusive are compared with the structure disclosed in this application by repeating said claims and interpolating therein the reference characters of the corresponding parts as found in the present application, in the manner following:

1. In a ball rolling game, a substantially horizontal table (11), the combination with said table of a substantially vertical support (85) thereon carrying a coil spring (84) coiled around the support and including a downturned extension (83), said spring constituting one conductor member of a switch disposed in an electric circuit (41-42, Figs. 2 & 4), the other member of the switch comprising a conductor ferrule (80) carried by and embedded (equivalently) in the table and adapted to be engaged by said extension which depends into said ferrule, said members being normally gaped apart to hold the circuit open but adapted to close momentarily to establish the circuit when a ball rolling on the table bumps the spring. (the operation of applicant's device of Fig. 4 connected to conductors 41-42 of Fig. 2 obviously responds to the call of the claim.)

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515 2. In a ball rolling game, a substantially horizon-

tal table (11), the combination with said table, of a substantially vertical standard (85) thereon carrying a coil spring (84) coiled around the standard and having a leg (83) extending downwardly into an opening formed (above 82) in the board, said spring and support constituting one side of a circuit closer disposed in an electric circuit (41-42), the other side of the switch comprising a conductor (80) disposed in (equivalently) said opening, said spring when bumped by a ball rolling on the table being movable to engage the leg with the conductor in said opening momentarily to establish the circuit. (Functions as per remarks re claim 5 above).

3. In a ball rolling game, a substantially horizontal table (11), the combination with said table, of a substantially vertical standard (85) thereon carrying a coil spring (84) coiled around the standard and having a leg (83) extending downwardly into an opening formed (above 82) in the board, said spring constituting one side of a circuit closer disposed in an electric circuit (41-42), the other side of the switch comprising a conductor ferrule (80) carried by the table within (equivalently) said opening, said ferrule including an inturned annular flange (rim of 82), said spring when bumped by a ball rolling on the table being movable to engage the leg with the flange momentarily to establish the circuit. (Function obviously same per remarks re claim 5 above.)

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516 4. In a ball rolling game having a substantially horizontal table (11) over which balls are rollable, the combination with said table of a substantially vertical standard (85) anchored (at 88) in said table with its lower end carrying on the underside of the table a lead (connectable to lug at 88) for an electric circuit (41-42) and its upper end (at 86) extending a substantial distance above the top surface of the table, a coil spring (84) surrounding the standard, means (86) carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and conductor means (80) in said circuit and embedded (equivalently) in the table at a point spaced from the standard and engageable by a portion (83) of the

spring when it is flexed to close the aforementioned circuit. (Functional statements from line 7 on are obviously met by applicant's structure).

5. In a ball rolling game having a substantially horizontal table (11) over which balls are rollable, the combination with said table of a substantially vertical standard (85) anchored (at 88) in said table with its lower end carrying on the underside of the table a lead (lug at 88) for an electric circuit (41-42) and its upper end (at 86) extending a substantial distance above the top surface of the table, a coil spring (84) surrounding the standard, means (86) carrying said spring pendants from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and a conductor ferrule (80) embedded in (below) an opening formed (above 82) in the table at a point spaced from the standard and

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517 engageable by a portion (83) of the spring extended into said ferrule when the spring is flexed to cause closing of the aforementioned circuit.

Respectfully submitted,

Ellsworth M. Fitch

By Clarence E. Threedy

His Attorney.

Chicago, Illinois.
September 20, 1939.
CL:KY

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CPS 200/52

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298347

Patented Feb. 21, 1956
Electrically Operated

Fig. 1.

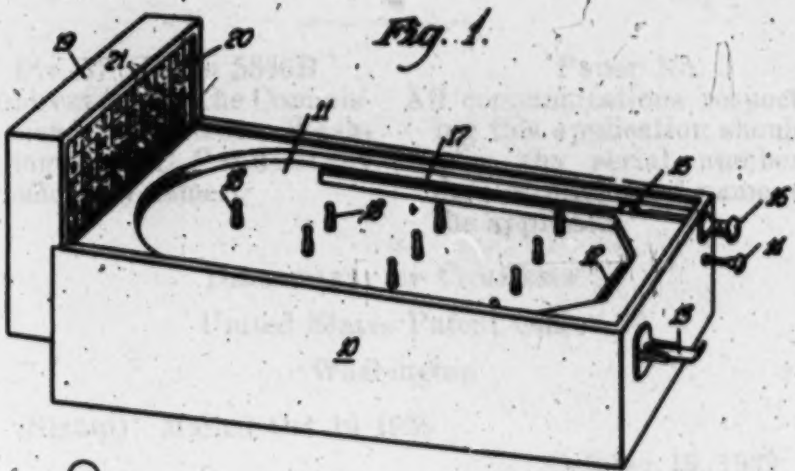


Fig. 3.

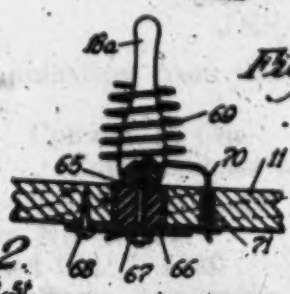


Fig. 2.

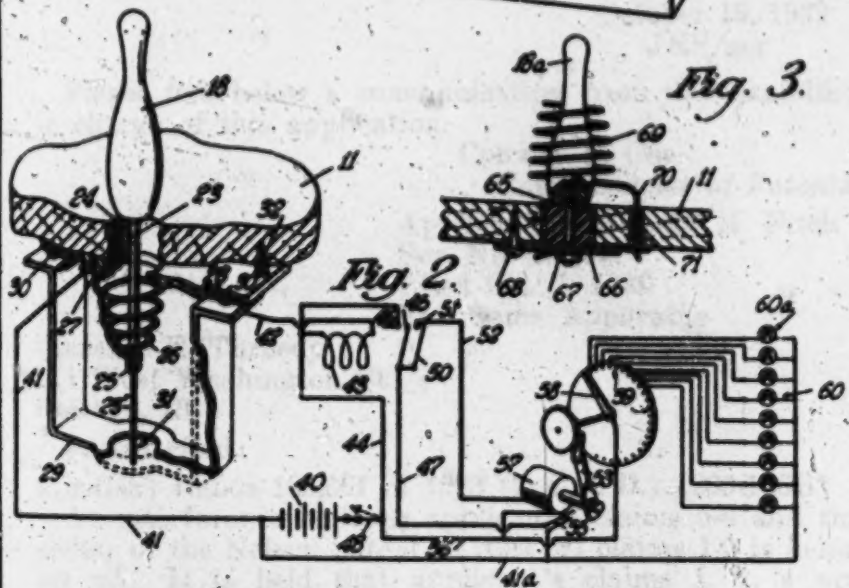
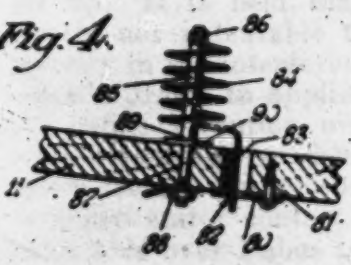


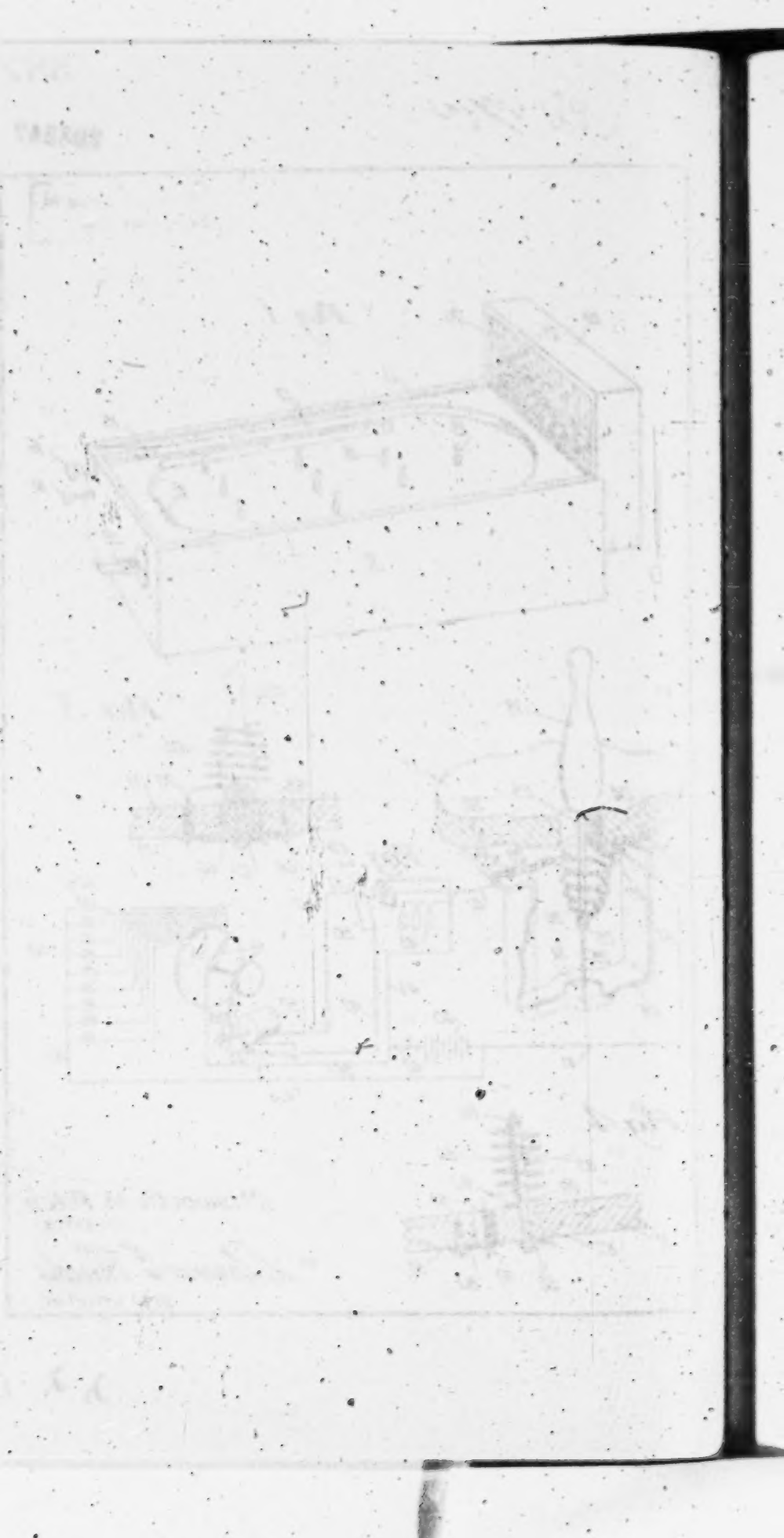
Fig. 4.



Ellsworth M. Fitch
INVENTOR.

BY *Clarence E. Thundy*
HIS ATTORNEY.

3212



519

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Div. 37 Room 5886B
Address only "The Commissioner of Patents, Washington, D. C.," and not any official by name.

Paper No. 3
All communications respecting this application should give the serial number, date of filing, and name of the applicant.

DEPARTMENT OF COMMERCE
United States Patent Office

Washington

(Stamp) Mailed Oct 19 1939

October 19, 1939
JRS/acr

Please find below a communication from the Examiner in charge of this application.

Conway P. Coe
Commissioner of Patents.

Applicant: Ellsworth M. Fitch
Ser. No. 298,347
Filed Oct. 7, 1939
For Game Apparatus

Clarence E. Threedy
111 West Washington St.
Chicago, Ill.

Patent cited:

(British) Dabos 186,061 of 1923 (2 S., 2 D.) (200-166B)

An interference between applicant's claims 5-9 and the claims of the Nelson patent (2,109,678) claims 1-5 is being set up. It is held that applicant's claims 1, 2, 4 are clearly not patentable to applicant unless he can prove priority in the interference and that claim 3 although specifically drawn to applicant's species shown in fig. 3 does not define invention over the issue of the interference more especially in view of Dabos cited above (fig. 10) where the coil spring contact is forced against a centrally arranged stator contact. Claim 3 is also rejected as not patentable over Dabos taken alone.

Claims 1, 2, 4 are likewise also rejected as lacking invention over Dabos.

M. E. Weaver
Examiner.

JRS

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.079

INTERFERENCE.

Interference No. 77643 Paper No. 4
Name, Ellsworth M. Fitch
Serial No. 298,347
Title, Game Apparatus
Filed, October 7, 1939
Interference with Nels A. Nelson

Decisions on Motion

Ex'r of Interferences, Dated,
Board of Appeals, Dated,

Decisions on Priority

Ex'r of Interferences, Dated,
Board of Appeals, Dated,
Court, Dated,

Remarks:

This should be placed in each application or patent involved in interference in addition to the interference letters by Primary Examiner.

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Div. 37 Room 5886B
Address only "The Commissioner of Patents, Washington, D. C.," and not any official by name.

Paper No. 5
All communications respecting this application should give the serial number, date of filing, and name of the applicant.

DEPARTMENT OF COMMERCE
United States Patent Office
Washington

JRS/acr

(Stamp) Mailed Oct 31 1939

Please find below a communication from the Examiner in charge of this application.

Conway P. Coe
Commissioner of Patents.

Applicant: Ellsworth M. Fitch
Ser. No. 298,347
Filed Oct. 7, 1939
For-Game Apparatus

Clarence E. Threedy
111 West Washington St.
Chicago
Illinois

The case, above referred to, is forwarded to the Examiner of Interferences because it is adjudged to interfere with others, hereafter specified. The question of priority will be determined in conformity with the Rules. The interference will be identified as No. 77643. On or before Dec 4—1939 the statement demanded by rule 110 must be sealed up and filed with the subject of invention, and name of party filing it, endorsed on the envelope. The subject-matter involved in the interference is

Counts:

1. In a ball rolling game, a substantially horizontal table, the combination with said table of a substantially vertical support thereon carrying a coil spring coiled around the support and including a down-turned exten-

sion, said spring constituting one conductor member of a switch disposed in an electric circuit, the other member of the switch comprising a conductor ferrule carried by and embedded in the table and adapted to be engaged by said extension which depends into said ferrule, said members being normally gapped apart to hold the circuit open but adapted to close momentarily to establish the circuit when a ball rolling on the table bumps the spring.

2. In a ball rolling game, a substantially horizontal table, the combination with said table, of a substantially vertical standard thereon carrying a coil spring coiled around the standard and having a leg extending downwardly into an opening formed in the board, said spring and support constituting one side of a circuit closer disposed in an electric circuit, the other side of the switch comprising a conductor disposed in said opening, said spring when bumped by a ball rolling on the table being movable to engage the leg with the conductor in said opening momentarily to establish the circuit.

3. In a ball rolling game, a substantially horizontal table, the combination with said table, of a substantially vertical standard thereon carrying a coil spring coiled around the standard and having a leg extending downwardly into an opening formed in the board, said spring constituting one side of a circuit closer disposed in an electric circuit, the other side of the switch comprising a conductor ferrule carried by the table within said opening, said ferrule including an inturned annular flange, said spring when bumped by a ball rolling on the table being movable to engage the leg with the flange momentarily to establish the circuit.

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522 4. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendants from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and con-

ductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

5. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and a conductor ferrule embedded in an opening formed in the table at a point spaced from the standard and engageable by a portion of the spring extended into said ferrule when the spring is flexed to cause closing of the aforementioned circuit.

This interference involves the above identified application and a patent No. 2,109,678, for Contact Switch for Ball Rolling Games, granted March 1, 1938, on Appln. S. No. 120,256, filed Jan. 12, 1937, by ~~to~~ Nels A. Nelson, whose post office address is 2640 Belmont Avenue, Chicago, Illinois, whose attorney is Paul O. Pippel of 180 N. Michigan Avenue, Chicago, Illinois, and whose assignee is Ace Patents Corporation, of Chicago, Illinois.

The relation of the counts of this interference to the claims of the respective parties is as follows:

Counts	Counts Fitch	Nelson
1	5	1
2	6	2
3	7	3
4	8	4
5	9	5

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523 Claims 1-4 will be held subject to the issue of the interference.

(Counts compared)

JRS

M. E. Weaver

Examiner, Division 37.

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524 (Stamps) Mail Division Oct 27 1939 U. S. Patent
Office Docket Division Oct 30 1939 U. S. Patent
Office

IN THE UNITED STATES PATENT OFFICE

In re application of
Ellsworth M. Fitch
Serial No. 298,347
Filed October 7, 1939
For: Game Apparatus
Hon. Commissioner of Patents:

SUBSTITUTION OF ATTORNEY.

The undersigned, having heretofore been appointed attorney of record in the above-entitled application, hereby withdraws and substitutes and appoints in his stead, with full powers concurrent with the powers granted in the original appointment by applicant, Callard Livingston, Register No. 13,799, whose post office address is 611½ Arlington Place, Chicago, Illinois.

Signed at Chicago, in the County of Cook, and State of Illinois, this 25th day of October, 1939.

Clarence E. Threedy

Acceptance

I accept the foregoing appointment as attorney of record in the above-entitled application.

Signed at Chicago, in the County of Cook, and State of Illinois, this 25th day of October, 1939.

Callard Livingston

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525

421

1939

CONTENTS.

1. Application papers.
2. Print Oct. 12/39
3. Rejection Oct 19 1939
4. Interference Prior 77643
5. Interference Declaration Oct 31 1939
6. Substit Power of Attorney Oct 27/39

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586 And on, to wit, the 11th day of July, A. D. 1940
came the Defendants by their attorneys and filed in
the Clerk's office of said Court their certain Exhibit No. 3
in words and figures following, to wit:

It took one and a half years to design

and - HERE IT IS

BOLLO

A TWO BALL GAME

with ten ball fascination
and better than
one ball receipts

**LEGAL EVERYWHERE...YET IT PACKS REAL ACTION
PLAYED JUST LIKE REGULAR BOWLING**

Skilled play of the fast ball enables the player to make a strike in 10 or 12 regular bowling pins. Making all ten pins with two balls is "Strike a Spot!" Bowling is based on the number of pins hit.

FAST ACTION BALL

There is no bias in the ball and the ball bounces from pin to pin making a strike of the ball impossible. The ball is made of the best rubber in the world. The ball is the only ball in the world that will not break. The ball is the only ball in the world that will not break. The ball is the only ball in the world that will not break.

SCORE PADS FURNISHED

Regular bowling score pads are furnished with each game and additional pads may be had.

**Popular
Size
32x48**

at cost. These pads induce competing play and swell the receipts. At two balls for a match this game takes in 50¢ per frame while a full sized bowling alley that costs \$1,200 only takes in 25¢. Just think four players each playing a full game will play Two Dollars and this game is played faster than a One Ball. The game on the side represents the biggest bet now placed on any game, yet the players like them because they add to the thrill of the game.

MAY BE PLAYED WITH FIVE BALLS

For tournaments where five balls are required this game has been arranged so that the things of some needs and the interest of those balls will make it ready for action. No alteration of the game required.



\$49.50

**FEDERAL
EXCISE
PAID**

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DISTRIBUTOR
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PACENT NOVELTY MANUFACTURING CO.
"A NEW COMPANY WITH NEW IDEAS"
UTICA, NEW YORK
1410 LINCOLN AVE.

**WIRE
WRITE
PHONE**

526 And on, to wit, the 11th day of July, A. D. 1940
came the Defendants by their attorneys and filed in
the Clerk's office of said Court their certain Exhibit 5 in
words and figures following, to wit:

Defendant's Exhibit 5

W.A.S.



B.



528 And on, to wit, the 11th day of July, A. D. 1940
came the Defendants by their attorneys and filed in
the Clerk's office of said Court their certain Exhibit 6 in
words and figures following, to wit:

Defendant's Exhibit 6

Defendants

Ex 6

Let

T.O.B.



Sub B

530 And on, to wit, the 11th day of July, A. D. 1940 came the Defendants by their attorneys and filed in the Clerk's office of said Court their certain Exhibit No. 15 in words and figures following, to wit:

531 DEFENDANTS' EXHIBIT NO. 15.

Pacent Novelty Manufacturing Co., Inc.

The attached check is payment in full for the items below. If incorrect in any detail do not deposit and return for correction. Detach before depositing. No receipt necessary.

Date	Item	Amount	Deductions
			Freight Discount
6/6/36	Salary in full to date		
	41 hours @ 35c per hour	14.35	
	Total amount	14.35	
	Less Deductions		
	Net Amount	14.35	
			Total Deductions

532 And on, to wit, the 11th day of July, A. D. 1940 came the Defendants by their attorneys and filed in the Clerk's office of said Court their certain Exhibit No. 16 in words and figures following, to wit:

533 DEFENDANTS' EXHIBIT NO. 16.

Pacent Novelty Manufacturing Co.

614 Broad street
Utica, New York

Phone 2-7112
Cable Address
"Panelty"

Gaming Room Supplies
Carnival Games and Devices
Automatic Vending Machines
Bagatelle Pin Games

April 3, 1937.

To Whom It May Concern:

This will certify that the bearer, Mr. Ellsworth M. Fitch has been in our employ since June 1, 1936 to April 3, 1937. He was in charge, practically all of the time, of experi-

mental work consisting of the electrical circuits and layouts of the goods we manufactured. We always found him industrious, faithful and very efficient.

Very truly yours,
Pacent Novelty Mfg. Co. Inc.

Martin P. Grimm.

Martin P. Grimm,

President.

MPG:EMT

534 And on, to wit, the 11th day of July, A. D. 1940 came the Defendants by their attorneys and filed in the Clerk's office of said Court their certain Exhibit No. 17 in words and figures following, to-wit:

Defendant's Exhibit 17

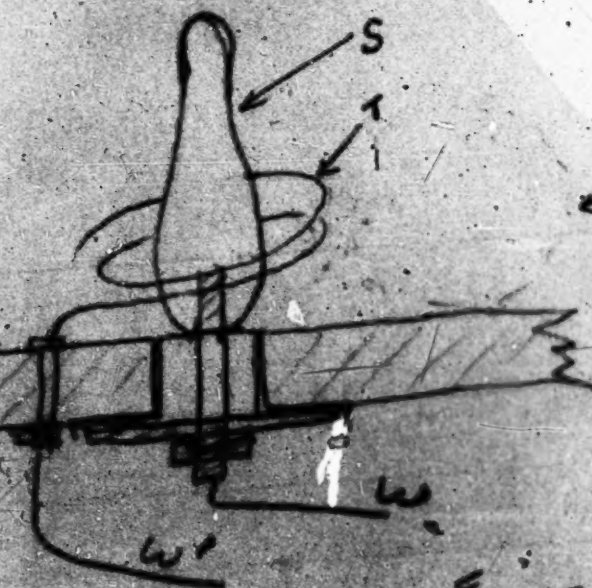
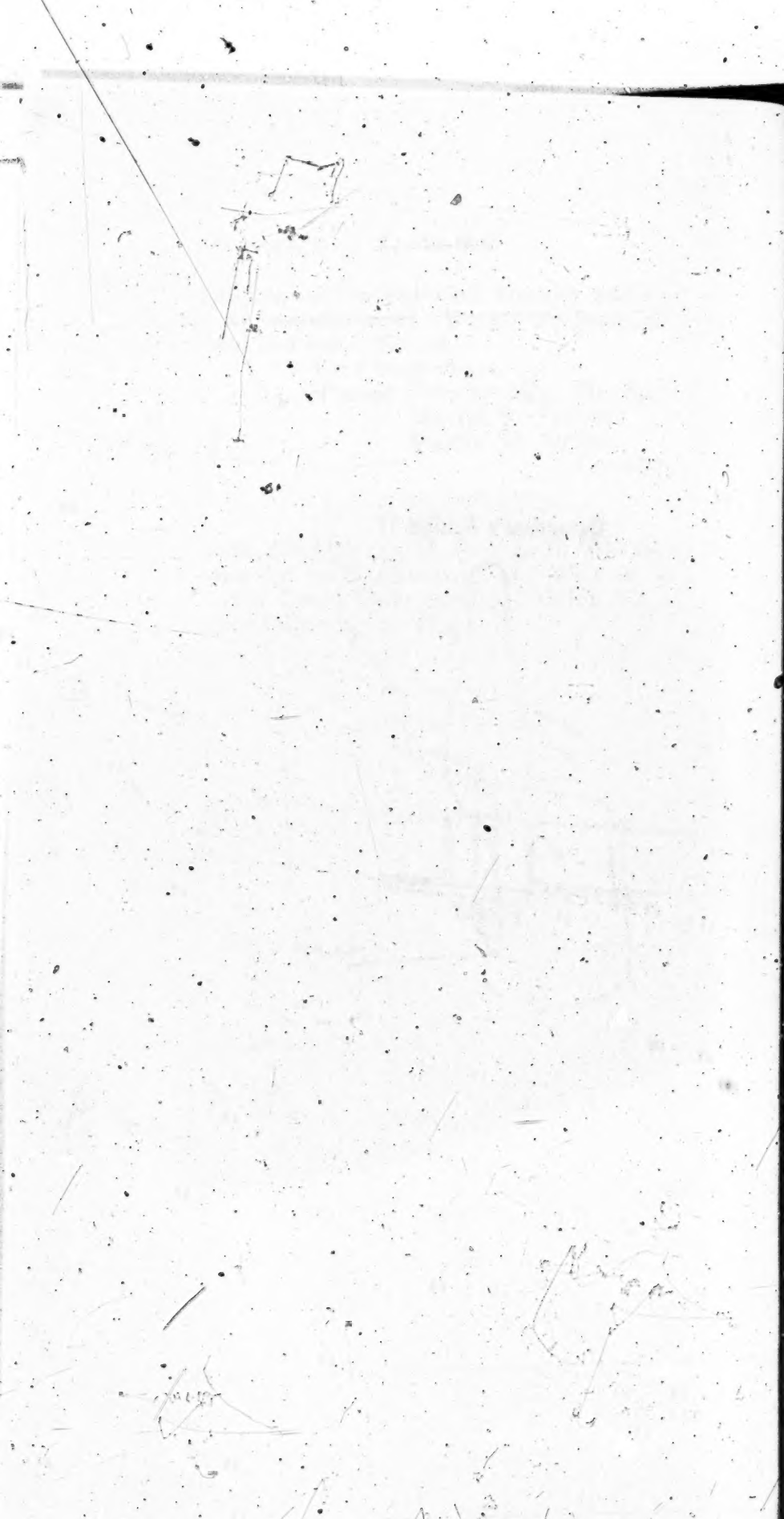


Fig 1

Ex 17

L.R. T.B. 2.

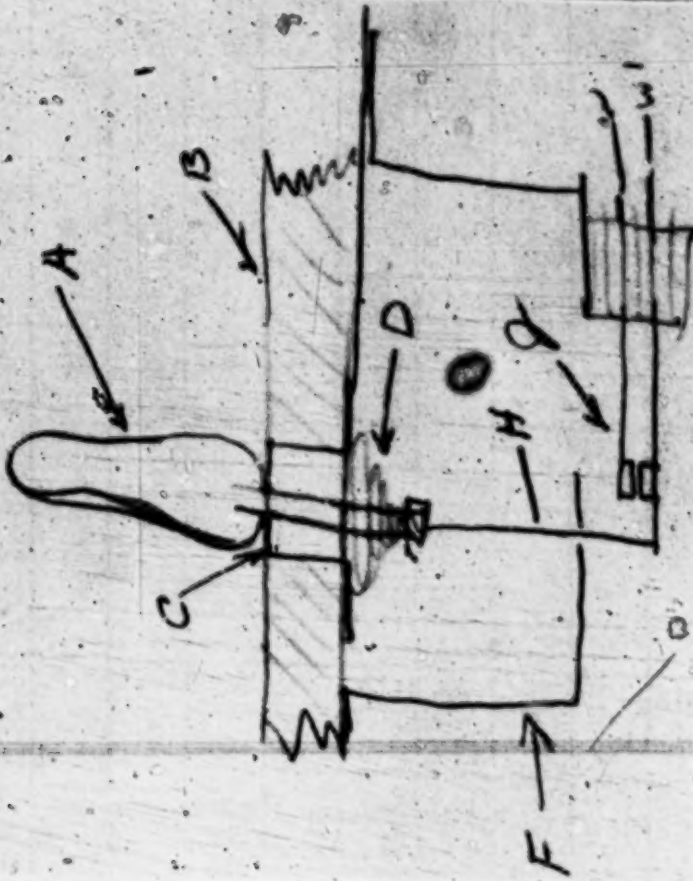


536 And on, to wit, the 11th day of July, A. D. 1940 came
the Defendants by their attorneys and filed in the
Clerk's office of said Court their certain Exhibit No. 18
in words and figures following, to wit:

Defendant's Exhibit 18

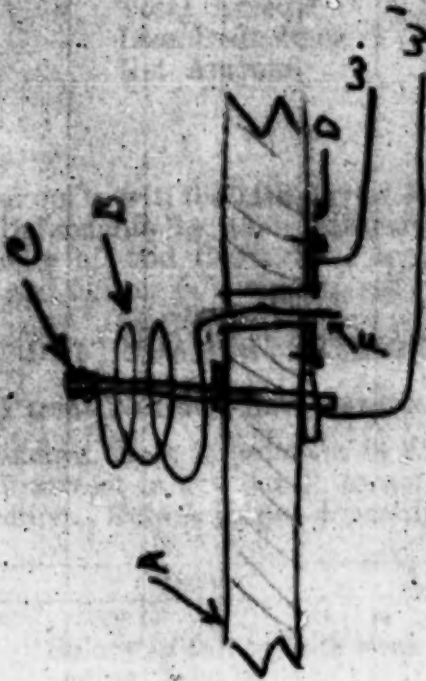
Ex 18
L.A.
T.B.G.

Fig. 2



538 And on, to wit, the 11th day of July, A. D. 1940 came the Defendants by their attorneys and filed in the Clerk's office of said Court their certain Exhibit No. 19 in words and figures following, to wit:

Defendant's Exhibit 10



Ex 10 Let. P.O.P.
Fig. 3

540 And on, to with, the 11th day of July, A. D. 1940
came the Defendants by their attorneys and filed in the
Clerk's office of said Court their certain Exhibit No. 20.
in words and figures following, to wit:

541 DEFENDANTS' EXHIBIT NO. 20.

Pacent Novelty Manufacturing Co., Inc.

The attached check is payment in full for the items below. If incorrect in any detail do not deposit and return for correction. Detach before depositing. No receipt necessary.

Date	Item	Amount	Deductions
			Freight Discount
7/25/36	Salary in full to date week ending July 25	20.00	
	Total Amount	20.00	
	Less Deductions		
	Net Amount	20.00	
			Total Deductions

542 And on, to wit, the 11th day of July, A. D. 1940 came
the Defendants by their attorneys and filed in the
Clerk's office of said Court their certain Exhibit No. 21
in words and figures following, to wit:

543 DEFENDANTS' EXHIBIT NO. 21.

Pacent Novelty Manufacturing Co., Inc.

The attached check is payment in full for the items below. If incorrect in any detail do not deposit and return for correction. Detach before depositing. No receipt necessary.

Date	Item	Amount	Deductions
			Freight Discount
7/18/36	Salary in full to date week ending July 18	15.40	
	Total Amount	15.40	
	Less Deductions		
	Net Amount	15.40	
			Total Deductions

544 And on, to wit, the 11th day of July, A. D. 1940 came the Defendants by their attorneys and filed in the Clerk's office of said Court their certain Exhibit No. 22 in words and figures following, to wit:

Ex 22
sawed in pin 5 L.R.
7.8.8

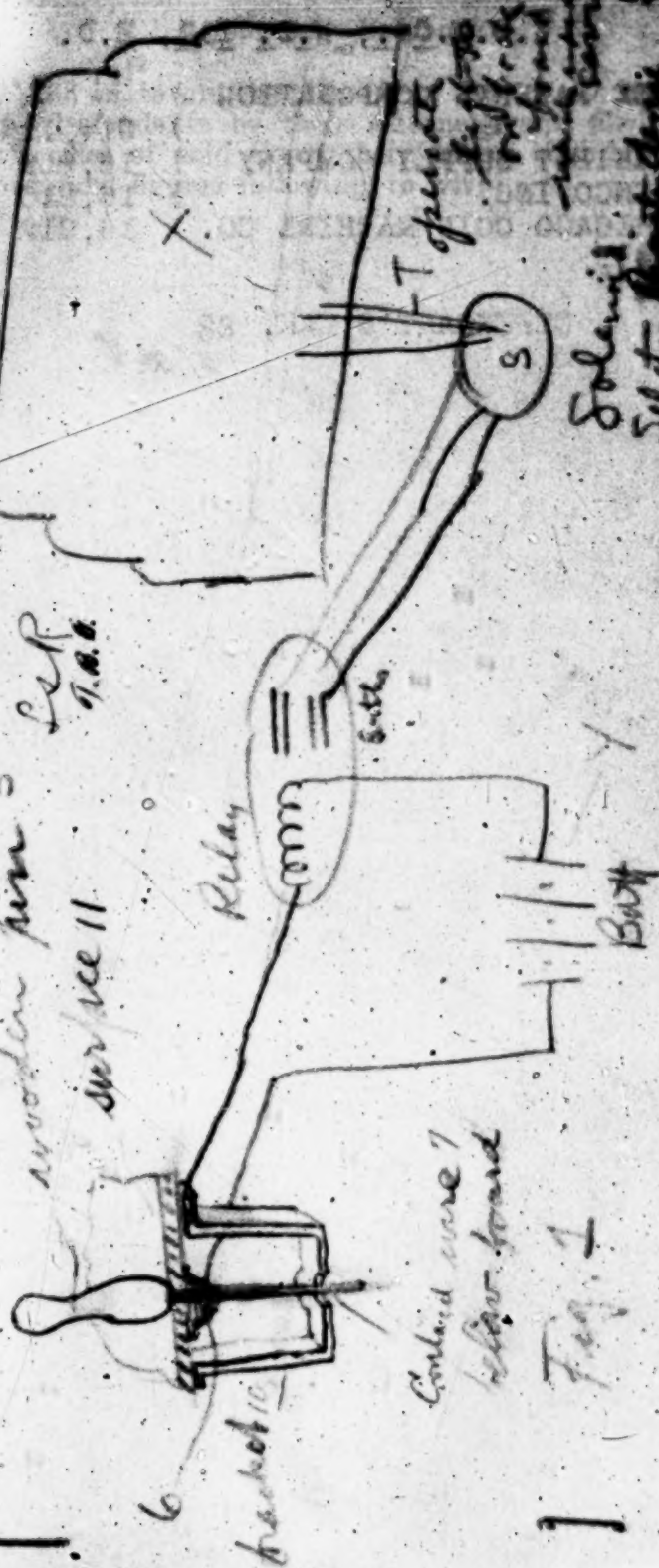


Fig. 1

46 And on, to wit, the 11th day of July, A. D. 1940 came
the Defendants by their attorneys and filed in the
clerk's office of said Court their certain Exhibit No. 23
words and figures following, to wit:

Defendant's Exhibit 23

Q.A.C.

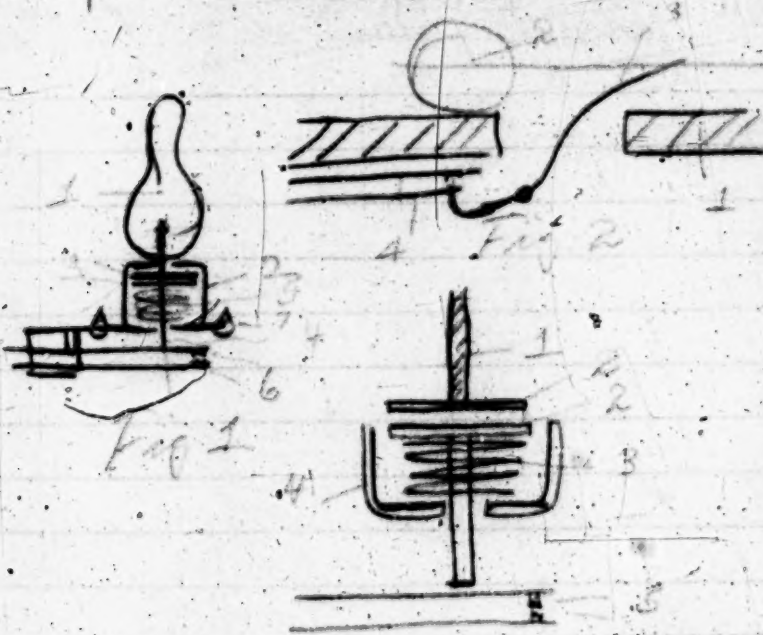
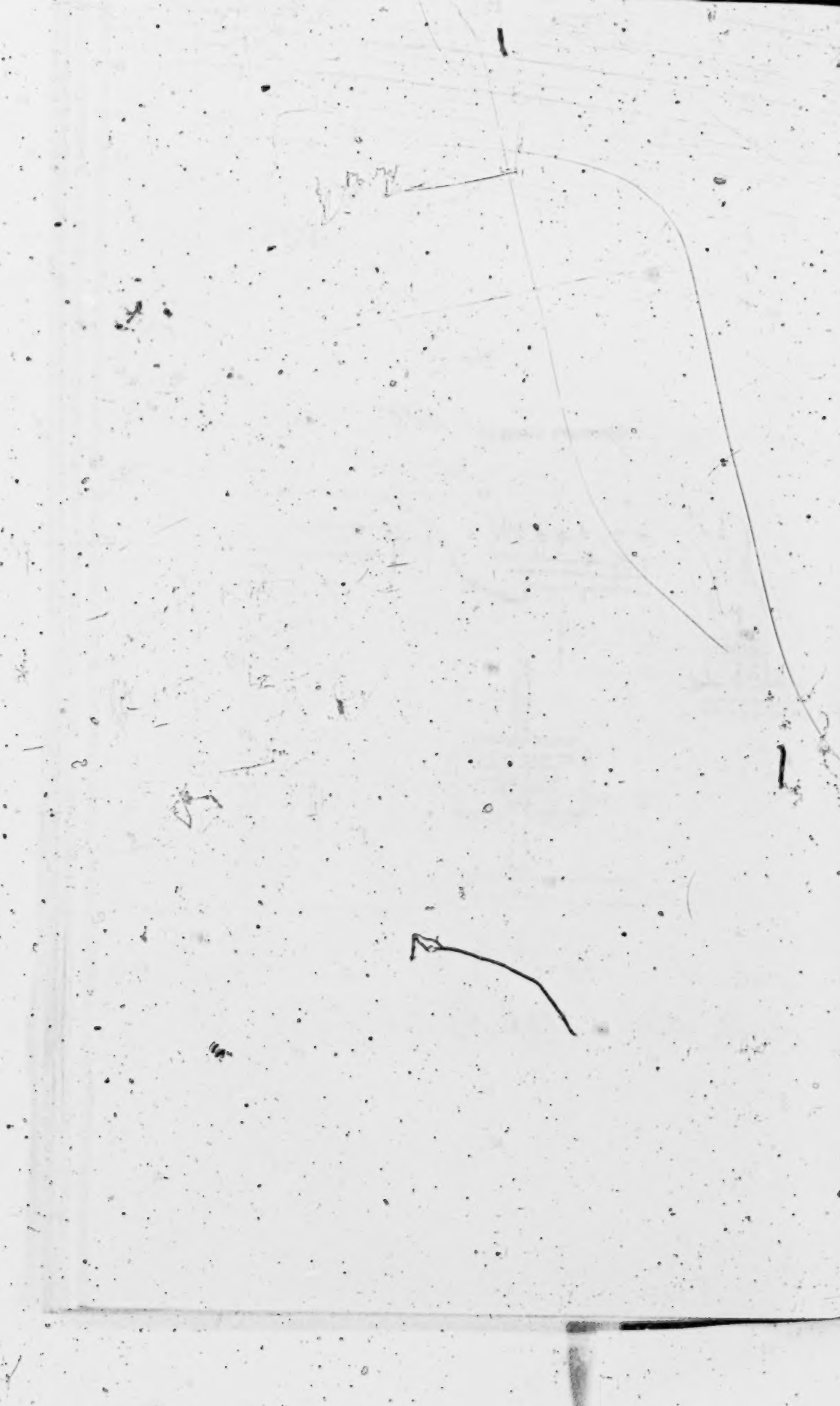


Fig 3

Witness made Dec. 11, 1936, P.M.



548 And on, to wit, the 11th day of July, A. D. 1940 came
the Defendants by their attorneys and filed in the
Clerk's office of said Court their certain Exhibit No. 24
in words and figures following, to wit:

Defendant's Exhibit 24

Frederick H. Cookinham, Attorney

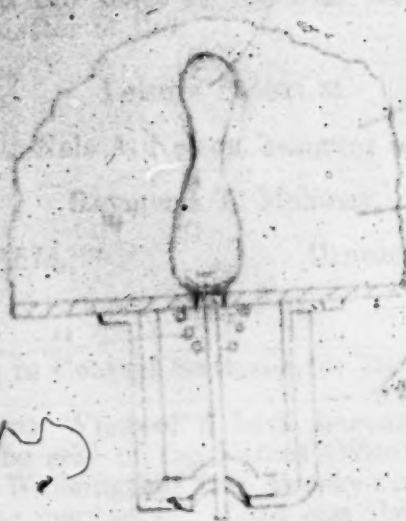
27 Mass Building

Utica, N. Y.

*Letter mailed from the
Utica, N. Y.*

*EX 24 - LTR
T.B.P.*

wooden pin



*surface
fine board*

bracket

*contact
wire*

Sketch made Aug 15 1936

588 And on, to wit, the 11th day of July, A. D. 1940 came
the Defendants by their attorneys and filed in the
Clerk's office of said Court their certain Exhibit No. 25
in words and figures following, to wit:

589 DEFENDANTS' EXHIBIT NO. 25.

390

DEPARTMENT OF COMMERCE

United States Patent Office

To all persons to whom these presents shall come, Greeting:

This Is To Certify that the annexed is a true copy from
the records of this office of the File Wrapper and Contents,
in the matter of the

Letters Patent of

Nels A. Nelson, assignor to

Raymond T. Moloney,

Number 2,109,678,

Granted March 1, 1938,

for

Improvement in Contact Switches for Ball Rolling Games.

In Testimony Whereof I have hereunto set my hand
and caused the seal of the Patent Office to be affixed, at
the City of Washington, this twenty-ninth day of September,
in the year of our Lord one thousand nine hundred and
thirty-eight and of the Independence of the United States
of America the one hundred and sixty-third.

Conway P. Coe,

Commissioner of Patents.

(Seal)

Attest:

C. W. Sutton,

Acting Chief of Division.

Patent No. 2109678

1937

Dated Mar 1 1938
(Ex'r's Book) 70-43-21

of Chicago,
State of Illinois.

Invention Contact Switch for Ball Rolling Games.

Parts of Application Filed {	Original Application Filed Complete	Jan 12, 1937	Renewed 2/11/37
	Petition, Specification, Oath, First Fee, \$30, 1 sheets Drawings,	Jan 12, 1937	17
	<hr/> <hr/> <hr/>		
	<hr/> <hr/> <hr/>		
	Examined and passed for Issue	Jan 26, 1938	
	M: E. Weaver, Exr. Div. 37		
	Notice of Allowance	Jan 26, 1938	
	Final Fee \$30	By Commissioner. Jan 31, 1938	
	Reexam'd and passed for Issue		193
	Exr. Div.		
	Notice of Allowance		193
	By Commissioner.		
	Final Fee.		193

Attorney Paul O. Pippel, 180 N. Michigan Ave., 606 S.
~~Michigan Ave~~ Chicago Ill.

Associate Attorney

No. of Claims Allowed 5 Print Claims 1 in O. G. Class
200—52

Title as allowed Contact Switch for Ball Rolling Games
(In left-hand margin) Division of App. No. _____,
filed _____, 19____.

591 (Stamps) Mail Division Jan 12 1937 U. S. Patent
Office. Jan 12 37 129083—Check—30.00. Division 37,
Paper No. 1 Jan 19 1937 U. S. Patent Office.

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120256

PETITION.

To The Commissioner of Patents:

Your petitioner, Nels A. Nelson, a citizen of the United States and resident of Chicago, in the County of Cook, State of Illinois, whose postoffice address is 2640 Belmont Avenue, Chicago, Ill., prays that Letters Patent may be granted to him, for the improvement in a Contact Switch for Ball Rolling Games set forth in the annexed specification.

And he hereby appoints Paul O. Pippel, 606 South Michigan Ave., Chicago, Ill. (Registration No. 11,592), his Attorney, with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to receive the Patent and to transact all business in the Patent Office connected therewith.

Signed at Chicago, in the County of Cook and State of Illinois this 8th day of January, 1937.

Inventor's full name: Nels A. Nelson.

SPECIFICATION.

To all Whom it May Concern:

Be it Known, That I, Nels A. Nelson, a citizen of the United States, and resident of Chicago in the County of Cook, and State of Illinois, have invented certain new and useful improvements in a Contact Switch for Ball Rolling Games of which the following is a full, clear, and exact specification:

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The invention relates to a contact switch for use in ball rolling games, or the like.

These games usually embody a table over which a ball is freely rollable to engage suitable targets disposed

5 thereon, said targets in the present instance being in the

form of a special means adapted to be bumped or contacted

by the ball to cause momentary closing of a circuit with

a suitable source of energy, said circuit including an

electromagnetic relay to operate a score register, dispenser,

10 or like game auxiliary.

More particularly, the invention relates to the target structure which in the present instance is in the form of a resilient circuit closer, so disposed on the game table as to be contacted by a freely rolling ball, 15 or other playing piece, momentarily to close the associated circuit.

The main object of the invention is to provide a novel form of obstacle or target for use with ball rolling games.

20 Another object is to provide such obstacle in the form of a normally open resilient switch or circuit closer, which when bumped or contacted by a free rolling ball momentarily closes to establish an electric circuit.

Still another object is to provide such a contact 25 switch in the form of a pendant coil spring carried above a game board, and including a leg movable, when the spring is bumped, to engage a ferrule, or the like, disposed in the board; both the spring and ferrule constituting electrical 30 conductors disposed in a circuit.

Other important objects will become apparent to those skilled in this art as the disclosure is more fully made.

120256—2

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Briefly, these objects may be attained in a ball rolling amusement game having a table over which a ball or balls may be propelled, or otherwise rolled with the object

of causing the ball to bump or contact the switch structure

5 of this invention. Said switch comprises a conductor standard mounted in the table and carries a coil spring

• having a leg pendantly disposed in a conductor ring located in the table slightly offset from the standard. The standard and ring are wired in a circuit with a source of energy and a relay coil in such a manner that when a ball rolling on the table bumps the coil spring from any angular direction whatsoever, the leg of the spring will be caused momentarily to contact the conductor ring in the board to establish the circuit for operating the relay coil and any desired game auxiliary device.

In the sheet of drawings:

Figure 1 is a front elevational view of the bumper obstacle mounted on a game board; and,

Figure 2 is a side sectional view thereof, taken along the line 2—2 of Figure 1, looking in the direction of the arrow; a wiring diagram being also shown in illustrative form.

The game board or table is shown at 10, the same being either disposed horizontally or slightly tilted from

the horizontal in a manner well known in this art. A support or standard 11 is mounted in an upright position on the board, the same having a reduced threaded shank 12 passed through the board, or table 10, as shown, there being provided a metallic clip 13, and nut 14, below the table to secure the standard to the table, in an obvious manner.

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The upper end of the standard also is reduced to form a threaded shank 15, the shoulder thus provided, carrying a horizontal washer 16. The shank above the washer 16 carries a cup-shaped cap 17 and between the cap and washer

5 is the end of a coil spring 18, which at its lower end terminates in a pendant spring leg 19. The spring assembly is made secure by a lock washer 20 and nut 21, as shown.

Below the leg 19 and offset from the standard 11, the table 10 is formed with an aperture in which is securely seated a conductor ferrule 22 into which the leg 19 is suspended and normally out of contact therewith. Said ferrule at its lower end is formed with an inturned annular flange 23 and an integral depending extension 24.

10 The clip 13 and extension 24 are disposed, for example, in an electrical circuit 25 for an electromagnetic relay coil 26, and with a source of energy, such as the battery 27.

In use, when a ball rolling on the table 10 bumps or hits the spring 18 to rebound therefrom, the impact moves the spring sufficiently to cause the leg 19 thereof to contact the flange 23 of the ferrule, momentarily to close the circuit 25 and cause energization of the coil 26 for any desired purpose. It can be seen since the leg 19 is normally disposed at the center of the annual ferrule 22,

20 that no matter from what angular direction a ball strikes the spring it will be operative to close the circuit in the manner described.

In a ball rolling game any desired number of such spring switch obstacles or targets may be placed on the board in any suitable spaced relationship and consequently,

—3—

120256-4

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as in pin ball games generally, a single ball may successively bump and close a number of the switch devices.

It is the intention to cover all changes and modifications of the example of the invention herein chosen

5 for purposes of the disclosure, which do not constitute departures from the spirit and scope of the invention.

What is claimed is:

—4—

120256—5

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per A

per A

1. In a ball rolling game, a ***(SUBSTANTIALLY HORIZONTAL)** table, the combination with said table of a ***(SUBSTANTIALLY VERTICAL)** support thereon carrying a ***(COIL) spring *(COILED AROUND THE SUPPORT AND)** including

an *(A DOWN-TURNED) extension, said spring constituting one conductor member of a switch disposed in an electric circuit; the other member of the

switch comprising a conductor *(FERRULE) carried by *(AND EMBEDDED IN) the table and adapted to

be engaged by said extension *(WHICH DEPENDS INTO SAID FERRULE), said members being normally gapped apart to hold the circuit open but adapted to close momentarily

to establish the circuit when a ball *(ROLLING ON THE TABLE) bumps the spring.

2. In a ball rolling game, a table, the combination

with said table of a *(SUBSTANTIALLY VERTICAL) support thereon carrying a pendant coil spring *(COILED AROUND THE SUPPORT

AND) including an extension *(PARALLEL WITH AND SPACED FROM THE SUPPORT), said spring constituting one

conductor member of a switch disposed in an electric circuit;

the other member of the switch comprising a conductor carried by

per B the table and adapted to be engaged by said extension; said

* Matter in parentheses inserted.

members being normally gapped apart to hold the circuit open but adapted to close momentarily to establish the circuit when a

" " ball **(ROLLING ON THE TABLE)* bumps the spring.

per A **(2.) & In a ball rolling game, a *(SUBSTANTIALLY HORIZONTAL) table, the combination*

" " with said table, of a **(SUBSTANTIALLY VERTICAL) standard thereon carrying a coil spring *(COILED AROUND THE*

" " STANDARD AND) having a leg extending downwardly into an opening formed in the board, said spring **(AND SUPPORT)* constituting one side of a circuit closer disposed in an electric circuit, the other side of the switch

comprising a conductor disposed in said opening, said spring

" " when bumped by a ball **(ROLLING ON THE TABLE)* being movable to engage the leg with the conductor in said opening momentarily to establish the circuit.

per B *4. In a ball rolling game, a table, the combination*

" " with said table, of a **(SUBSTANTIALLY VERTICAL) standard thereon carrying a coil spring *(COILED AROUND THE*

" " STANDARD AND) having a leg extending downwardly into an opening formed in the

" " board, said spring **(AND SUPPORT)* constituting one side of a circuit closer disposed in an electric circuit, the other side of the switch

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120256-6

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comprising a conductor ferrule carried by the table within said

per A opening, said spring when bumped by a ball **(ROLLING ON THE TABLE)* being movable to engage the leg with the ferrule momentarily to establish the circuit.

* Matter in parentheses inserted.

per A **(3.) & In a ball rolling game, a *(SUB-*
 STANTIALLY HORIZONTAL) table, the combina-
 tion
 " " *with said table, of a *(SUBSTANTIALLY VER-*
 TICAL) standard thereon carrying a coil spring
 " " **(COILED AROUND THE*
 STANDARD AND) having a leg extending down-
 wardly into an opening formed in the
 board, said spring constituting one side of a cir-
 cuit closer
 disposed in an electric circuit, the other side of the
 switch
 comprising a conductor ferrule carried by the table
 within said
 opening, said ferrule including an inturned annu-
 lar flange,
 " " *said spring when bumped by a ball *(ROLLING*
 ON THE TABLE) being movable to engage the
 leg with the flange momentarily to establish the
 circuit.

Add A¹—Cls 4-5

6. In a ball rolling game, a table, the combina-
 tion
 " " *with said table, of a *(SUBSTANTIALLY VER-*
 TICAL) standard thereon carrying a pendant coil
 " " *spring *(SURROUNDING THE STANDARD*
 AND) having a depending leg hanging down
 **(INTO) †[in] an opening formed*
 " " *in the table *(AND) offset from said standard, a*
 conductor in the
 opening, said standard and spring being conduc-
 tors, the opening
 per B *conductor and leg being normally gapped apart*
 and included in a
 circuit, said opening conductor and leg adapted to
 contact and
 " " *close the circuit when a ball *(ROLLING) on the*
 table bumps said spring.

Add A¹

120256—7

* Matter in parentheses inserted.

In testimony whereof I affix my signature.
Inventor's full name: Nels A. Nelson.

OATH.

State of Illinois } ss.
County of Cook }

I, Nels A. Nelson, the above named petitioner, citizen of the United States, and resident of Chicago, in the County of Cook, and State of Illinois, being duly sworn (or affirmed), depose and say that I verily believe myself to be the original, first and sole inventor of the improvement in a Contact Switch for Ball Rolling Games described and claimed in the foregoing specification; that I do not know and do not believe that the same was ever known or used before my invention or discovery thereof, or patented or described in any printed publication in any country before my invention or discovery thereof, or more than two years prior to this application, or in public use or on sale in the United States for more than two years prior to this application; that said invention has not been patented in any country foreign to the United States on an application filed by me or my legal representatives or assigns, more than twelve months prior to this application; and that no application for patent on said improvement has been filed by me or my representatives or assigns in any country foreign to the United States, except as follows:

Inventor's full name: Nels A. Nelson.

Sworn to and subscribed before me this 8th day of January, 1937.

(Seal)

Edna Petersen,
(Signature of Justice or Notary)
Notary Public.
(Official Character)

My Commission Expires Jan. 22, 1939.

120256—8

Jan 19 678
3/1

Fig. 1.

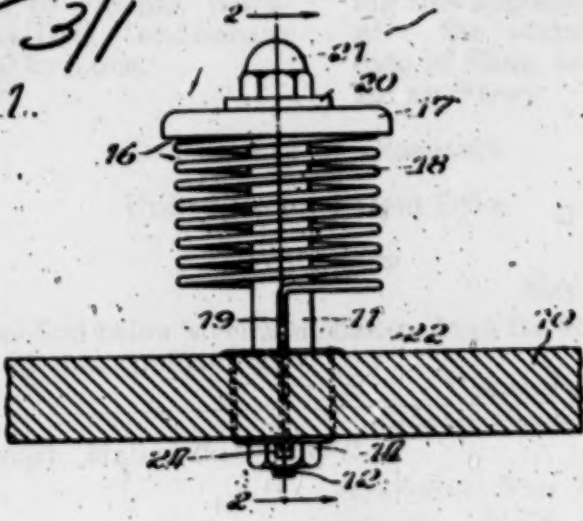
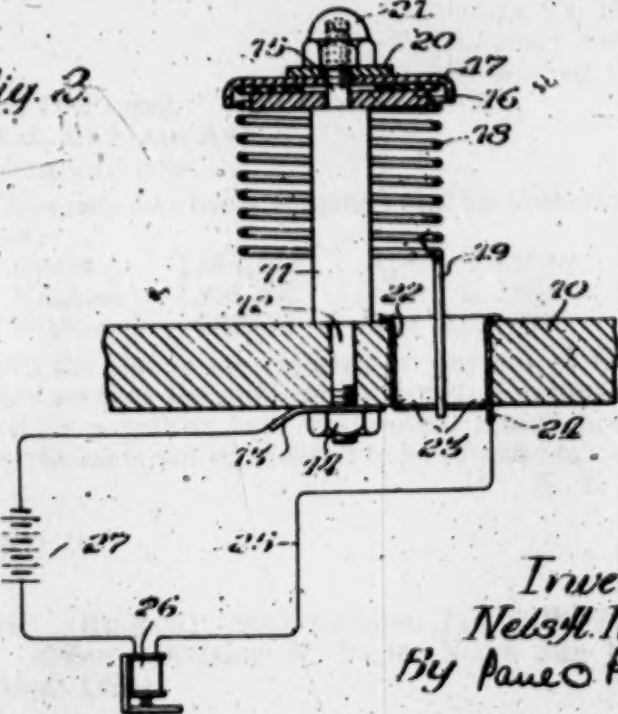


Fig. 2.



Inventor
Nels H. Nelson
By Paul O. Pippel
Att'y.

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Div. 37 Room 5886-B GHD:WS Paper No. 3
 Address only "The Commissioner of Patents, Washington, D. C.," and not any official by name. All communications respecting this application should give the serial number, date of filing, and name of the applicant.

DEPARTMENT OF COMMERCE

United States Patent Office

Washington

May 26, 1937

Please find below a communication from the Examiner in charge of this application.

Conway P. Coe,
 Commissioner of Patents.

(Stamp) Mailed May 26 1937.

Applicant: Nels A. Nelson
 Ser. No. 120,256
 Filed Jan. 12, 1937
 For Contact Switch for
 Ball Rolling Games

Paul O. Pippel,
 606 S. Michigan Ave.,
 Chicago, Illinois.

This case has been examined and the following references cited:

Quain	1,057,879	Apr. 1, 1913	200-166B'
Neubeck	1,808,060	June 2, 1931	200-166B'
Fisher	501,777	July 18, 1893	200-166B'

All the claims are rejected on any one of the references. The fact that the applicant's device is designed to be operated by a rolling ball, while other means are used in the references is not considered to be of patentable significance.

M. E. Weaver,
 Examiner.

GHD

120256-10

601 (Stamps) Mail Division Jun 10 1937 U. S. Patent Office. Division 37, Paper No. 4 Jun 12 1937 U. S. Patent Office.

IN THE UNITED STATES PATENT OFFICE.

Division 37—Room 5886-B.

In re Application

Nels A. Nelson

Serial No. 120,256

Filed January 12, 1937

Contact Switch for Ball
Rolling Games.

AMENDMENT.

Hon. Commissioner of Patents,
Washington D. C.

Sir:

In response to the Office action of May 26, 1937, please amend the above identified application as follows:

Claims 1, 2, 3, 4, 5 and 6, lines 1 respectively, before "table" insert —substantially horizontal—; in line 2 of each said claim, after "a" first occurrence, insert —substantially vertical—.

Claim 1, line 2, before "spring" insert —coil—; after "spring" insert —coiled around the support and—; line 3, change "an" to —a down-turned—; line 5, after "conductor" insert —ferrule—; after "by" insert —and embedded in—; line 6, after "extension" and before the comma insert —which depends into said ferrule—; last line, after "ball" insert —rolling on the table—.

Claim 2, line 3, before "including" insert —coiled around the support and—; same line, after "extension" but before the comma insert —parallel with and spaced from the support—; last line, after "ball" insert —rolling on the table—.

Claim 3, line 2, after "spring" insert —coiled around the standard and—; line 4, after "spring" insert —and sup-

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120256—11

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port—; line 7, after "ball" insert —rolling on the table—.

Claim 4, line 2, after "spring" insert —coiled around

the standard and—; line 4, after “spring” insert —and support—; line 7, after “ball” insert —rolling on the table—.

Claim 5, line 2, after “spring” insert —coiled around the standard and—; line 8, after “ball” insert —rolling on the table—.

Claim 6, line 3, after “spring” insert —surrounding the standard and—; change “in” to —into—; line 4, after “table” insert —and—; last line, after “ball” insert —rolling—.

Add new claims 7 and 8 as follows:

- (4.) 7. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantsly from the upper portion of the standard ^{*(ABOVE THE TABLE)} with the coils of the spring spaced from the standard ~~and the lower end of the coil spring terminating~~ ^{at a distance above the top surface of the table to enable the spring to be resiliently flexed when bumped} by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and ^{other} conductor means ^{*(IN SAID CIRCUIT AND EMBEDDED IN)} ~~carried by~~ the table at a point
- A¹
- per C
- “ “
- “ “
- per B

* Matter in parentheses inserted.

spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

A2

-2-

120256-12

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(5.) & In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantsly from the upper portion of the standard ^{(ABOVE THE TABLE)} with the coils of the spring spaced from the standard ~~and the lower end of the coil spring terminating~~ ^{at a distance above the top surface of the table to} enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and a conductor ferrule embedded in an opening formed in the table at a point spaced from the standard and engageable by a portion of the spring extended into said ferrule when the spring is flexed to cause closing of the aforementioned circuit.

per C

" "

" "

A

REMARKS.

Each of the six claims presented has been rejected on any of the patents to Fisher, Quain, or Neubeck. The Examiner states "The fact that the applicant's device is designed to be operated by a rolling ball, while other means are used in the references is not considered to be of patentable significance."

Such broad rejection would not be warranted unless the references disclosed the same spring switch closer as in applicant's invention, apart from the means or manner of closing the switch whether by a ball, or whatnot. Clearly there is no identity of structure between applicant's inven-

A3

—3—

120256—13

604-tion and that of the alleged references. Therefore, the rejection is too broad and sweeping, since clearly this applicant has a different structure, mode of operation, and result.

Applicant's invention is in a ball rolling game having a substantially horizontal ball rolling surface which carries a substantially vertical standard on which is pendently hung a coil spring wound around the standard. The standard and spring are in one side of a circuit. When a ball flexes the spring it engages another conductor carried on or in the table to complete the circuit. Surely such structure is not in the references.

For instance, Fisher has a spring 14 passed through a conductor loop 15, the two parts contacting when a door is opened to operate an alarm.

Neubeck is in an automobile organization, and when a steering drag link swings, a spring 19 is pulled thereby, right or left, to engage contacts 16 or 17 to operate a direction indicating signal.

Quain is a disturbance operated alarm for a trunk and comprises a vibratory horizontal coil spring *e* passed through a vertical coil spring *d*, the springs when vibrating, touching to close the circuit. Fig. 3 of this patent is inoperative, it would seem, especially in relation to springs *e* and *d*.

Obviously, none of the patents shows applicant's table, vertical support, coil spring embracing the support, second conductor on or in table, the spring when flexed engaging the second conductor.

To make the definitions of the invention more significant

and particular, each of the six claims has been amended and is now believed to be allowable.

Claim 1 is patentable, as amended, by virtue of the definition of a horizontal table, vertical support, a conductor

A4

—4—

120256—14

605 spring coiled around the support, spring extension, and conductor ferrule. Surely, there is not anything in the art to meet this.

The remaining claims are patentable for the same obvious reasons.

New claims 7 and 8 are added and define for a ball rolling game, a very particular pendant hung, spring structure not in, nor taught by the art.

All claims should be allowed, but if the rejection is to be repeated, counsel asks the courtesy of an application of the references to applicant's defined structure and function so that the rejection will be better understood.

The present invention, it may be of interest to note, is of tremendous commercial importance in the manufacture of pin ball games, at least 50,000 such games using this invention having been made and sold during the last three months. Thus, while the structure seems simple, it has met the test of commercial success and merits the protection of the patent laws.

Allowance is respectfully solicited.

Paul O. Pippel,
Attorney for Nelson.

Chicago, Illinois,
June 9, 1937.

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—5—

120256—15

606

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Div. 37 Room 5886B
Address only "The Commissioner of Patents, Washington, D. C.," and not any official by name.

Paper No. 5
All communications respecting this application should give the serial number, date of filing, and name of the applicant.

GHD/MB

DEPARTMENT OF COMMERCE
United States Patent Office
Washington

Sept. 8, 1937

Please find below a communication from the Examiner in charge of this application.

Conway P. Coe,
Commissioner of Patents.

(Stamp) Mailed Sep 8 1937:

Applicant: Nels A. Nelson
Ser. No. 120,256
Filed Jan. 12, 1937.
For Contact Switch for
Ball Rolling Games

Paul O. Pippel,
606 S. Michigan Ave.,
Chicago, Illinois.

In response to amendment filed June 10, 1937.

Claims 1, 3, 5 and 8 are allowable as at present advised.

Claims 4 and 6 are rejected as not showing any material difference over claims 1 and 3, respectively.

Claims 2 and 7 are rejected as failing to distinctly claim the invention as required by Section 4888 of the Statutes. It is old in the art to make an electrical contact by flexing a coil spring as shown by the art already cited in the case. In order to distinguish over the references therefor, the applicant's particular type of contact structure, comprising an extension on the coil spring adapted to engage an annular contact embedded in the table, must appear in the

claims. Such structure is absent from the above rejected claims 2 and 7.

M. E. Weaver,
Examiner.

G. H. D.
by J. L. J.

120256-16

607 (Stamps) Mail Division Sep 14 1937 U. S. Patent
Office. Division 37, Paper No. 6 Sep 15 1937 "B"
U. S. Patent Office.

IN THE UNITED STATES PATENT OFFICE.

Division 37—Room 5886B.

In re application
Nels A. Nelson
Serial No. 120,256
Filed January 12, 1937
Contact Switch for Ball
Rolling Games

AMENDMENT.

Hon. Commissioner of Patents,
Washington, D. C.

Sir:

In response to the Office action of September 8, 1937,
please amend the above identified application as follows:

Cancel claims 2, 4 and 6.

Claim 7, line 16, cancel "other"; cancel "carried by"
and substitute therefor — in said circuit and embedded
in—.

REMARKS.

Claims 1, 3, 5 and 8 stand allowed.

Claim 7 has been significantly amended near the end to
define the complementary conductor contact as being em-
bedded in the table.

Considering the art cited, it is too far to go to state that
the specific leg 19 must be defined. Each of the allowed
claims can, it seems, be very simply avoided by taking the
leg 19, separating it from the spring 18 and embedding it

as a pin in the table so that the spring when flexed would contact the pin. In view of this it is very difficult to understand why a claim covering such a simple change, which is well within the scope of applicant's invention, should not be allowed. Claim 7 covers such alternative form and

120256—17

608 should be allowed as the art is not pertinent to the organization defined.

In justice to applicant, claim 7 should be allowed.

The application is believed ready for final allowance. Such action is respectfully solicited.

Paul O. Pippel,
Attorney for Nelson.

Chicago, Illinois,
September 13, 1937.

—2—

120256—18

609 (Stamps) Mail Division Oct 1 1937 U. S. Patent
Office. Division 37, Paper No. 7 Oct 2—1937 U. S.
Patent Office.

Patents and Trade Marks
Paul O. Pippel
Attorney at Law
606 South Michigan Avenue
Chicago

September 27, 1937

Hon. Commissioner of Patents;
Washington, D. C.

Sir:

Re: Application of N. A. Nelson, filed January 12,
1937, Serial Number 120,256, for Contact
Switch for Ball Rolling Games, pending in
Division 37—Room 5886B

Please note that on and after October 11, 1937 my address
will be changed from 606 South Michigan Avenue, Chicago,
Illinois, to 180 North Michigan Avenue, Chicago, Illinois,
and mail should be addressed to me accordingly:

Respectfully,

Paul O. Pippel,
Attorney of Record.

POP:P

120256—19

Div. 37 Room 5886-B GHD:WS Paper No. 8
Address only "The Commissioner of Patents, Washington, D. C.," and not any official by name. All communications respecting this application should give the serial number, date of filing, and name of the applicant.

DEPARTMENT OF COMMERCE

United States Patent Office

Washington

January 12, 1938

Please find below a communication from the Examiner in charge of this application.

Conway P. Coe,
Commissioner of Patents.

(Stamp) Mailed Jan 12 1938.

Paul O. Pippel,
180 N. Michigan Ave.,
Chicago, Illinois.

Applicant: Nels A. Nelson
Ser. No. 120,256
Filed Jan. 12, 1937
For Contact Switch for
Ball Rolling Games

In response to amendment of September 14, 1937.

Claim 7 and claim 8 which was previously thought to be allowable, are both rejected as describing an inoperative structure in view of the applicant's disclosure.

These claims call for a pendantsly mounted coil spring terminating at a distance above the top surface of the table and having a portion thereof engaging a conductor embedded in the table. With the type of conductor disclosed, such a structure would be inoperative as the coil spring could not both terminate at a distance above the table and extend into a ferrule embedded therein. It is true as the applicant suggested that if the portion 19 were removed from the spring and embedded in the table an operative device would result but no such structure has been brought out by the drawing or specification.

Claims 1, 3 and 5 remain allowable as at present advised.

M. E. Weaver,
Examiner.

G. H. D.

120256-20

611 (Stamps) Mail Division Jan 19 1938 U. S. Patent
Office. Division 37, Paper No. 9 Jan 21 1937 "C"
U. S. Patent Office.

IN THE UNITED STATES PATENT OFFICE.

Division 37—Room 5886-B.

In re application
Nels A. Nelson
Serial No. 120,256
Filed Jan. 12, 1937

} Contact Switch for Ball
Rolling Games

AMENDMENT.

Hon. Commissioner of Patents,
Washington, D. C.

Sir:

In response to the Office action of January 12, 1938, please
amend the above identified application as follows:

Claim 7, line 10, after "standard" insert — above the
table—; lines 11 and 12 cancel "and the lower end of the
coil spring terminating at a distance above the top surface
of the table".

Claim 8, line 10, after "standard" insert — above the
table—; lines 11 and 12 cancel "and the lower end of the
coil spring terminating at a distance above the top surface
of the table".

REMARKS.

Counsel appreciates the Examiner's view respecting
claims 7 and 8 and therefore the limitation to the coil
spring having its lower end terminate above the table has
been eliminated.

Claims 7 and 8 now read on the disclosure and clearly
avoid any references.

As to claim 7 the last conductor means defined as em-

bedded in the table is the part 22 although obviously it is not limited to a ferrule, and a portion 19 of the spring would engage it.

Claims 1, 3 and 5 are allowed.

120256-21

612 Claims 7 and 8 are also thought to be allowable.
Formal allowance is respectfully requested.

Paul O. Pippel,
Attorney for Nelson.

Chicago, Illinois,
January 18, 1938.

-2-

120256-22

613

Serial No. 120,256

Div. 37 Room 5886-B

GHD:WS

Address Only

The Commissioner of Patents
Washington, D. C.

DEPARTMENT OF COMMERCE

United States Patent Office

Washington

January Twenty-Six, 1938

Nels A. Nelson (Assor)

Your Application for a patent for an Improvement in Contact Switch for Ball Rolling Games filed Jan. 12, 1937 has been examined and Allowed with 5 claims.

The final fee, Thirty Dollars, With \$1 Additional For Each Claim Allowed In Excess Of 20, must be paid not later than Six Months from the date of this present notice of allowance. If the final fee be not paid within that period, the patent will be withheld, but the application may be renewed within one year after the date of the original notice with a renewal fee of \$30 and \$1 additional for each claim in excess of 20.

The office delivers patents upon the day of their date, on which date their term begins to run. The preparation of the patent for final signing and sealing will require about four weeks, and such work will not be begun until after payment of the necessary final fee.

When the final fee is paid, there should also be sent, Dis-

tinety And Plainly Written, the name of the Inventor, Title Of The Invention, And Serial Number As Above Given, Date Of Allowance (which is the date of this circular), Date Of Filing, and, if assigned, the Names Of The Assignees.

If it is desired to have the patent issue to an Assignee Or Assignees, an assignment containing a Request to that effect, together with the Fee for recording the same, must be filed in this office on or before the date of payment of the final fee.

After issue of the patent, uncertified copies of the drawings and specifications may be purchased at the price of Ten Cents Each. The money should accompany the order. Postage stamps will not be received.

The final fee will Not be received from other than the applicant, his assignee or attorney, or a party in interest as shown by the records of the Patent Office.

Notice.—When The Number Of Claims Allowed Is In Excess Of 20, No Sum Less Than \$30 Plus \$1 Additional For Each Claim In Excess Of Twenty Can Be Accepted As The Final Fee.

Respectfully,

Conway P. Coe,
Commissioner of Patents.

Paul O. Pippel,
180 N. Michigan Ave.,
Chicago, Illinois.

(In left-hand margin) ☒ In Remitting The Final Fee Give The Serial Number At The Head Of This Notice.

(In right-hand margin) ☒ Uncertified Checks Will Not Be Accepted.

120256—23

614 (Stamps) Mail Division Jan 31 1939 U. S. Patent Office. Jan-31-38 144037 D—Check—30.00.

FINAL FEE PAID TO THE COMMISSIONER OF PATENTS.

(Be careful to give correct Serial No.)

Serial No. 120,256

Inventor:

Nels A. Nelson

Patent To Be Issued To

Raymond T. Moloney, as Assignee

Name Of Invention, As Allowed:

Contact Switch for Ball Rolling Games

Date Of Payment:

Mailed from Chicago, Ill., January 28, 1938

Fee:

\$30.00

Date Of Filing:

January 12, 1937

Date Of Circular Of Allowance:

January 26, 1938

The Commissioner of Patents will please apply the accompanying fee as indicated above.

Paul O. Pippel,
Attorney.

Send Patent To

Paul O. Pippel
180 N. Michigan Ave.
Chicago, Illinois

Final fees will not be received from other than the applicant, his assignee or attorney, or a party in interest as shown by the records of the Patent Office, Nor Will They Be Applied In Pending Applications.

120256—24

615-616 (United States Patent No. 2,109,678; see index.)

617

421

1937

CONTENTS:

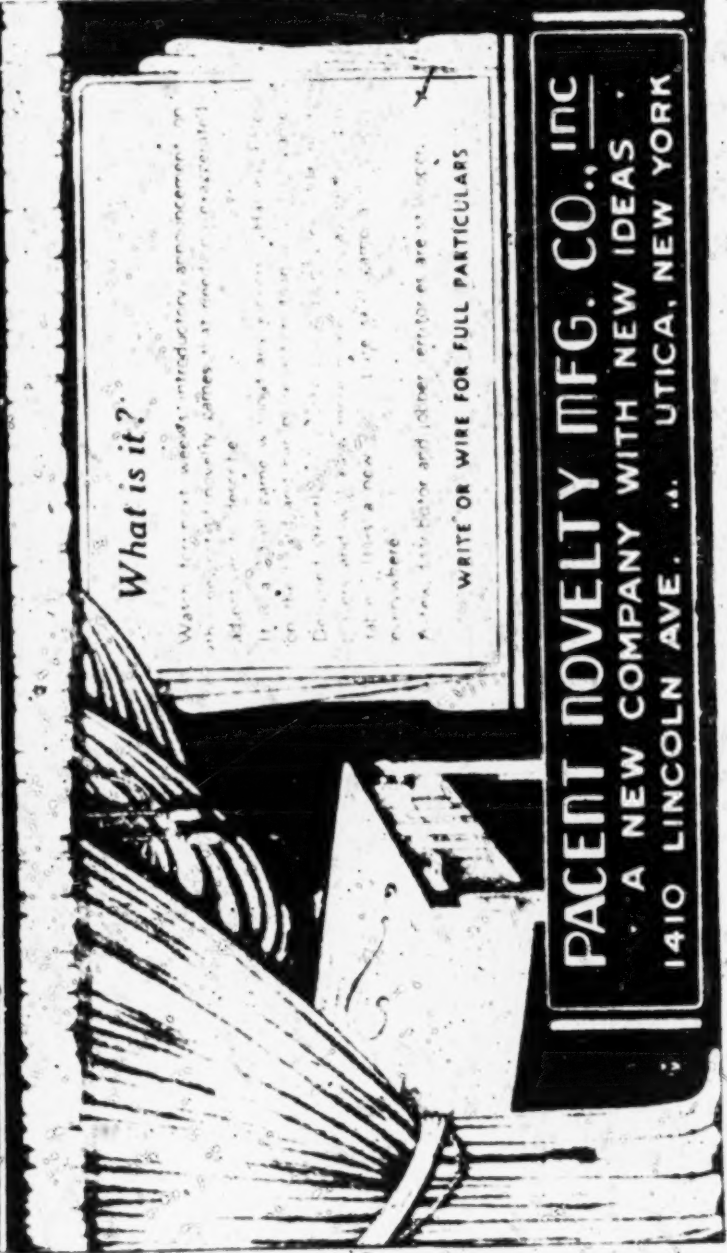
1. Application papers.
2. 1 Print Jan. 16/37.
3. Rejection May 26 1937.
4. Amdt "A" June 10/37.
5. Rejection Sep. 8 1937.
6. Amdt "B" Sept. 14/37.
7. Chg. Atty's Add. Oct. 1, 1937.
8. Rejection Jan 12 1938.
9. Amdt "C" Jan. 19/38.

120256—25

467 And on, to wit, the 11th day of July, A. D. 1940 came the Defendants by their attorneys and filed in the Clerk's office of said Court, their certain Exhibit No. 27 in words and figures following, to wit:

DEPENDANT'S EXH 27

'NEW AS TOMORROW'
"OLD AS YESTERDAY"

What is it?

What is it? It would introduce an improvement on the long standing novelty games as it introduces a completely new type of game.

It is a game in which you can play with your friends and family and it is a new type of game.

On the 15th and 16th of the month, the game is being played in the city and other places are to be played.

WRITE OR WIRE FOR FULL PARTICULARS

PACENT NOVELTY MFG. CO., INC
A NEW COMPANY WITH NEW IDEAS
1410 LINCOLN AVE. "A" UTICA, NEW YORK

469 And on, to wit, the 11th day of July, A. D. 1940 came the Defendants by their attorneys and filed in the Clerk's office of said Court their certain Exhibit No. 28 in words and figures following, to wit:

It took one and a half years to design
BOLLO
and - HERE IT IS

with ten ball fascination
and better than
one ball receipts

A TWO BALL GAME

**LEGAL EVERYWHERE - YET IT PACKS REAL ACTION
PLAYED JUST LIKE REGULAR BOWLING**

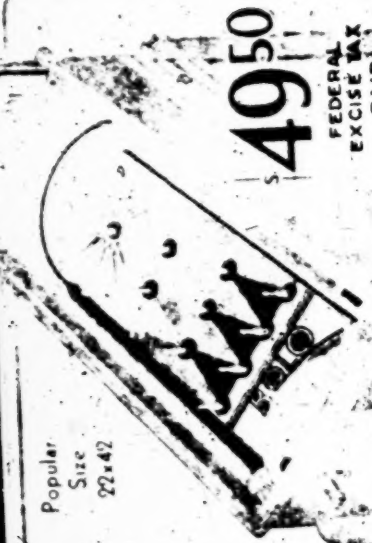
Popular
Size
22x42

FAST ACTION BALL
The fast ball catches the ball and the ball is in the air for a moment before it hits the pins. The ball is in the air for a moment before it hits the pins. The ball is in the air for a moment before it hits the pins.

just used with the regular ball. At first both the ball and the pins are in the air for a moment before they hit the pins. The ball is in the air for a moment before it hits the pins. The ball is in the air for a moment before it hits the pins.

**MAY BE PLAYED WITH
FIVE BALLS**

SCORE PADS FURNISHED
The score pads are furnished with the machine. The score pads are furnished with the machine. The score pads are furnished with the machine.



\$49.50

FEDERAL
EXCISE TAX
PAID

PACENT NOVELTY MANUFACTURING CO.
"A NEW COMPANY WITH NEW IDEAS"
1410 LINCOLN AVE. ... UTICA, NEW YORK

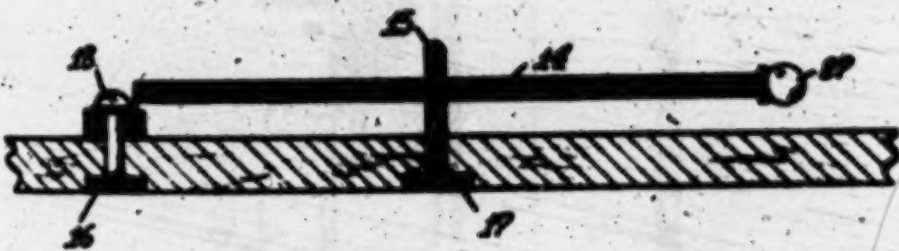
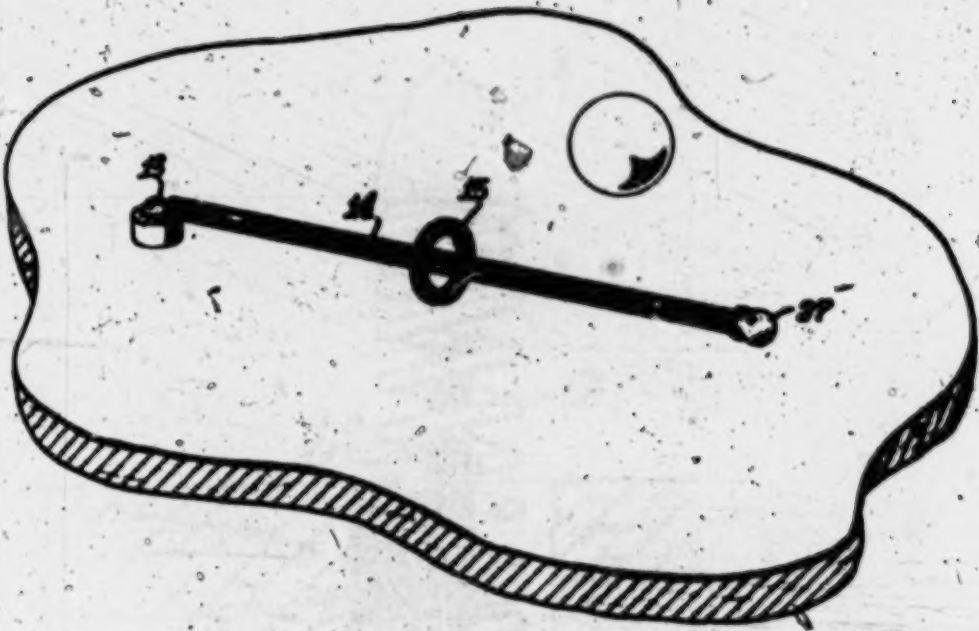
**WIRE
WRITE
PHONE**

SOME
DISTRIBUTOR
TERRITORY
STILL OPEN

Defendants' Exhibits 30, 33 and 35.

463

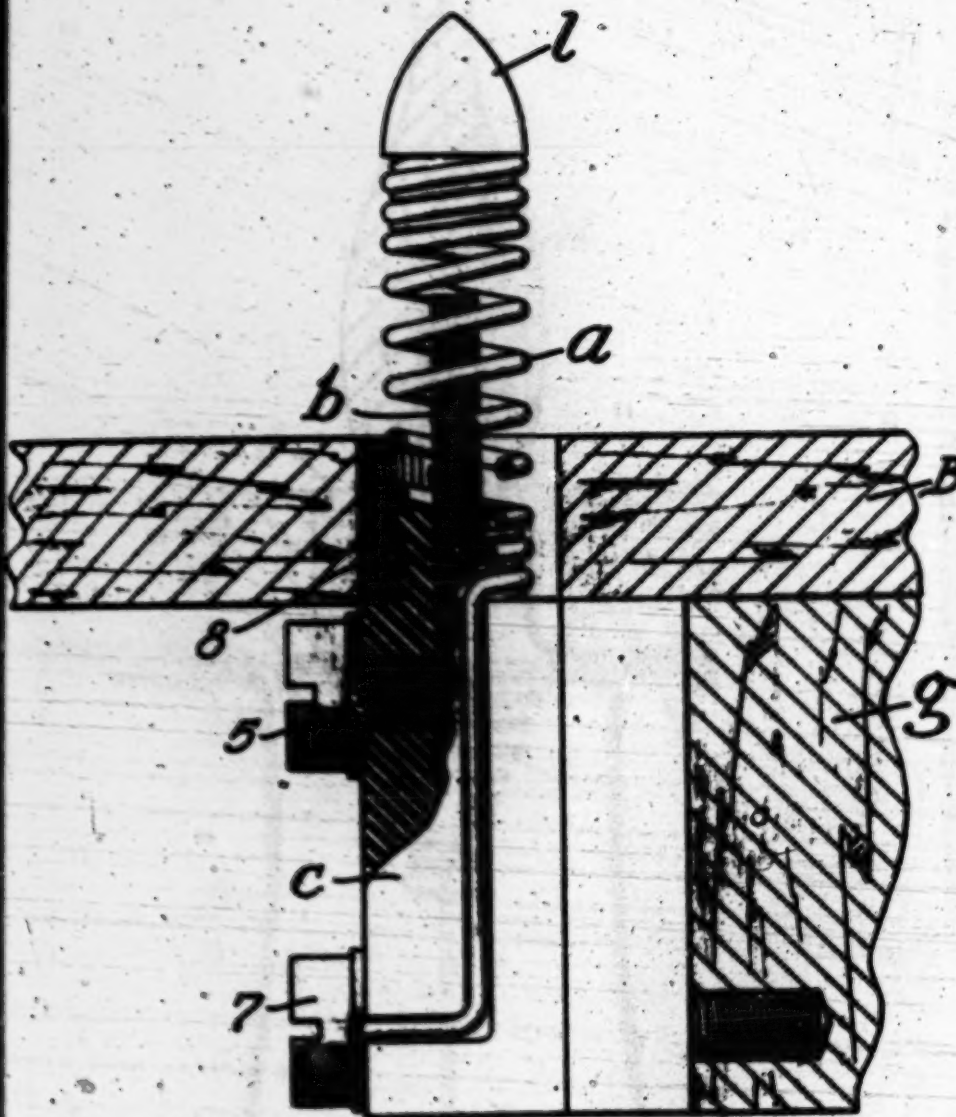
471 And on, to wit, the 11th day of July, A. D. 1940 came the Defendants by their attorneys and filed in the Clerk's office of said Court their certain Exhibits Nos. 30, 33 and 35 in words and figures following, to wit:



DEFENDANT'S EXH. 30

T. W. B.





DEFENDANT'S EXH. 33

T. O. J. 473

DEF'S EXH. 33 illustrating DABOS



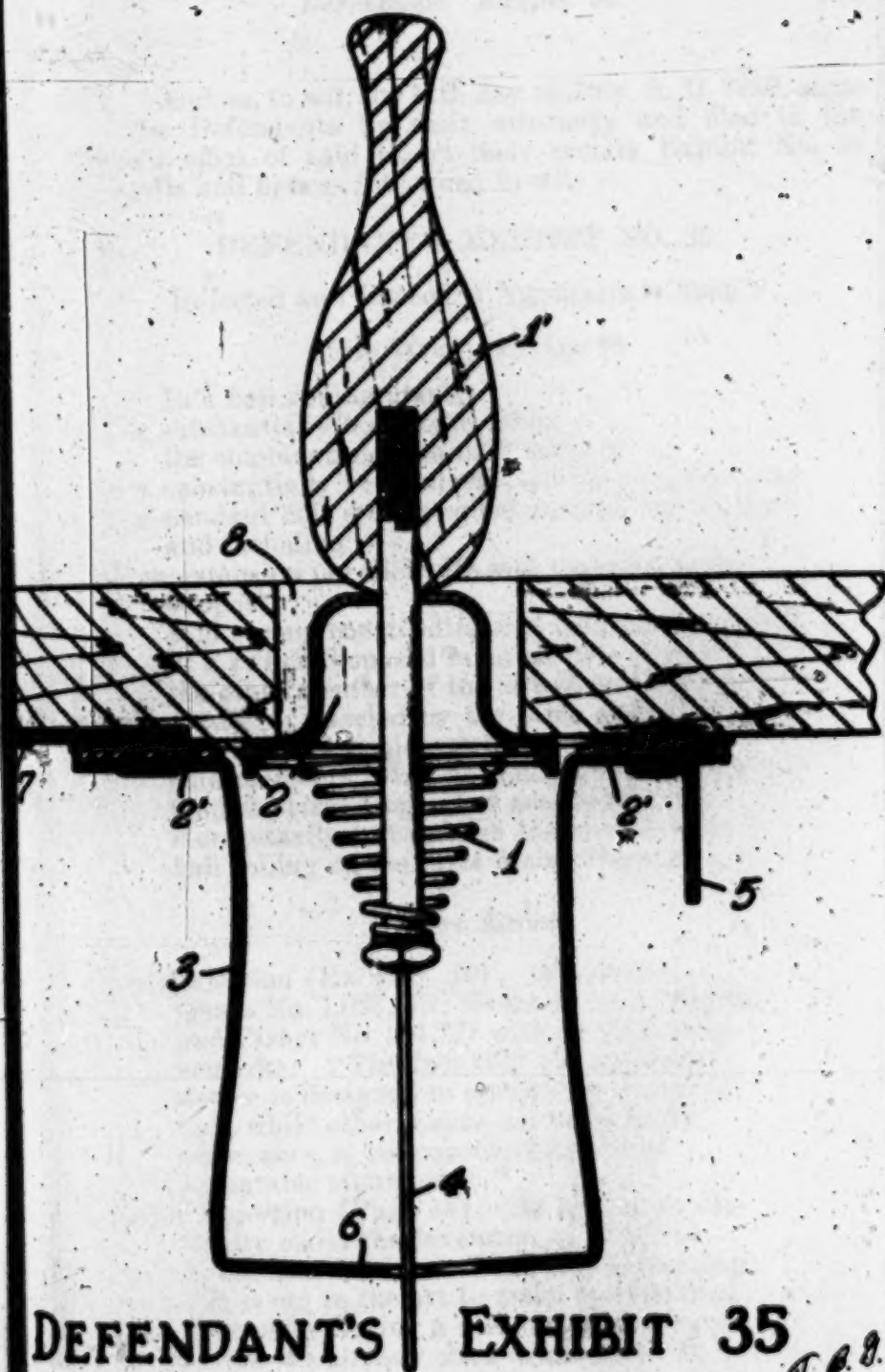




EXHIBIT 35

475 And on, to wit, the 11th day of July, A. D. 1940, came the Defendants by their attorneys and filed in the Clerk's office of said Court their certain Exhibit No. 36 in words and figures following, to wit:

476 DEFENDANT'S EXHIBIT NO. 36.

Rejected and Cancelled Application Claim 2

(File Wrapper Page 6)

- In a ball rolling game,
- (1) a substantially horizontal table, the combination with said table of
 - (2) a substantially vertical support thereon carrying
 - (3) a pendant coil spring coiled around the support and including
 - (4) an extension parallel with and spaced from the support, said spring constituting one conductor member of a switch disposed in an electric circuit, the other member of the switch comprising
 - (5) a conductor carried by the table and adapted to be engaged by said extension, said members being normally gapped apart to hold the circuit open but adapted to close momentarily to establish the circuit when a ball rolling on the table bumps the spring.

Office Action

First Rejection (Ex. 25 p. 10): Rejected on Quain No. 1,057,879; Neubeck No. 1,808,060; and Fisher No. 501,777 with the following remarks: "The fact that the applicant's device is designed to operate by a rolling ball, while other means are used in the references, is not considered to be of patentable significance."

Second Rejection (Page 16): As failing to distinctly claim the invention as required by Section 4888, the Examiner remarking: "It is old in the art to make an electrical contact by flexing a coil spring as shown by the art already cited in the case. In

order to distinguish over the references therefore the applicant's particular type of contact structure comprising an extension on a coil spring adapted to engage an annular contact embedded in the table must appear in the claims."

Result (Page 17): Claim 2 canceled.

477 Application Claim 7 Allowed As Claim 4 When Amended As Shown in Capitals

In a ball rolling game having

- (1) a substantially horizontal table over which balls are rollable,
- (2) a substantially vertical standard anchored in said table with its lower end carrying on the under side of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table,
- (3) a coil spring surrounding the standing,
- (4) means carrying said spring pendantly from the upper portion of the standard ***(ABOVE THE TABLE)** with the coils of the spring spaced from the standard ~~and the lower end of the coil spring terminating at a distance above the top surface of the table~~ to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor,
- (5) and ~~other~~ conductor means ~~carried by~~ ***(IN SAID CIRCUIT AND EMBEDDED IN)** the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the ~~aforementioned~~ circuit.

Office Action

First Rejection (Page 17): Same as rejection to claim 2.

Applicant's response to first rejection:

Canceled "carried by" and substituted

* Matter in parentheses inserted.

"in said circuit and embedded in".

Second Rejection (page 20): As describing an inoperative device in view of the applicant's disclosure.

Applicant's response to second rejection:

Amended claim 7 by inserting after standard "above the table" and by canceling "and the lower end of the coil spring terminating at a distance above the top surface of the table."

478 And on, to wit, the 11th day of July, A. D. 1940 came the Defendants by their attorneys and filed in the Clerk's office of said Court their certain Exhibit No. 37 in words and figures following, to wit:

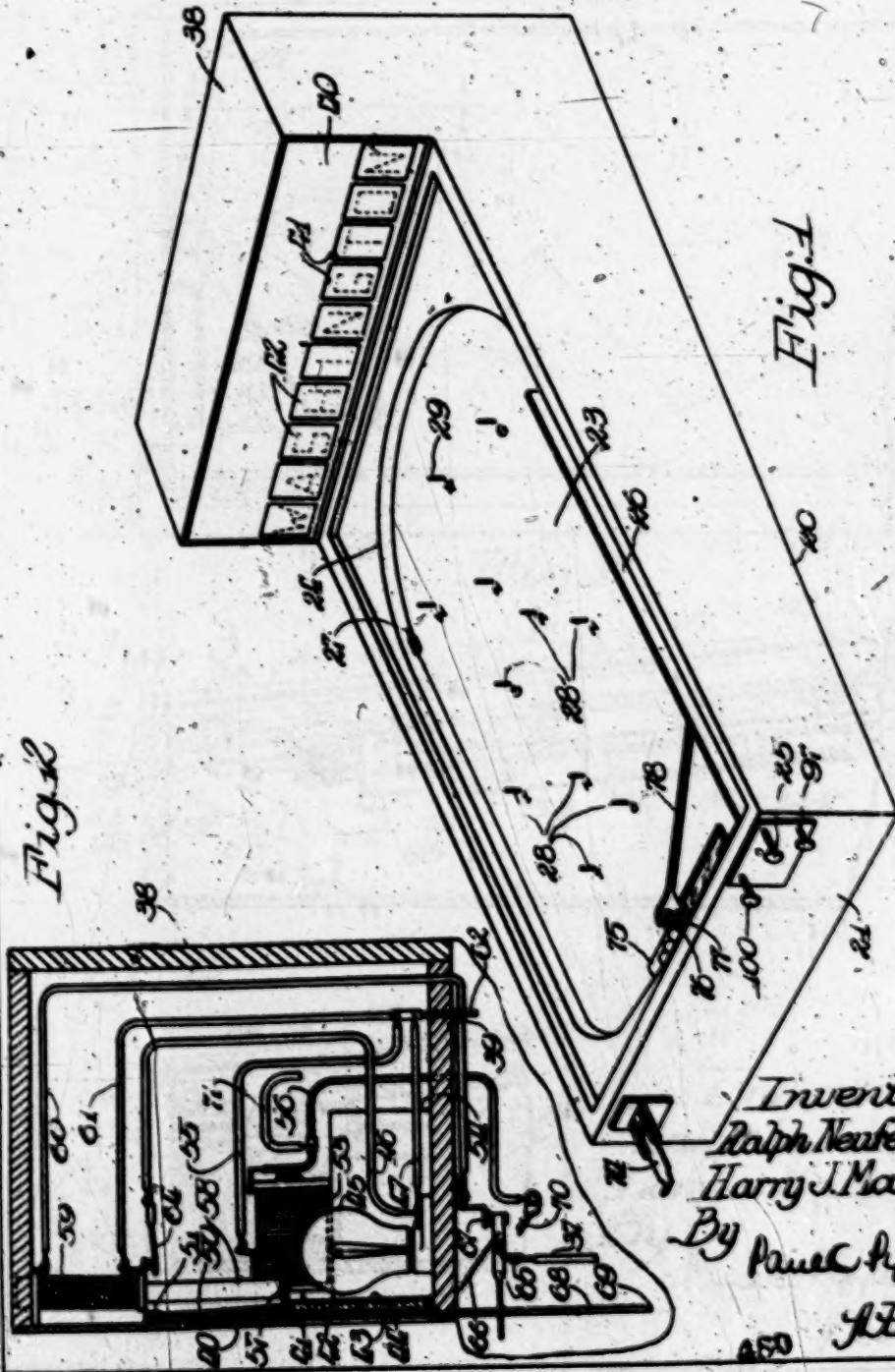
479 **DEFENDANT'S EXHIBIT 37.**

Portion of File Wrapper of Mabs, et al., patent application Filed April 10, 1935—from Defendants' Exhibit 37.

Movably carried by the game board 23 are ten upright obstacles in the form of metal conductor pins or levers 28, there being an eleventh pin 29 located near the upper end of the board, as shown. Looking to Figures 2, 3, 17 and 18 each of these pins 28, 29 has its mid-portion formed with a ball 30 journaled for universal pivotal movement in a pair of metal straps 31 secured to each other to clamp the ball therebetween, said straps being suitably mounted in appropriate slots formed in the board 23. The lower end of each lever 28, 29 as shown in Figure 3 extends downwardly a distance below the board 23; the lower ends of these levers having springs 32 connected to them, which springs in turn are anchored to a stationary under panel 33 carried in the cabinet 20.

Supported by a bracket 34 is carried a horizontal contact ring 35 adjacent each of the pins 28, 29 the lower end of each pin or lever extending centrally downwardly through the respective ring as shown in Figure 18. Each of the ten rings carries metallically connected thereto a conductor wire 36, while each of the clamp straps 31 has similarly connected to it a wire 37. (See Figure 11). Where these wires lead will later be described.

19



Inventors
 Ralph Newfeld
 Harry J. Mahs
 By Paul R. Piper
 Atty.

61

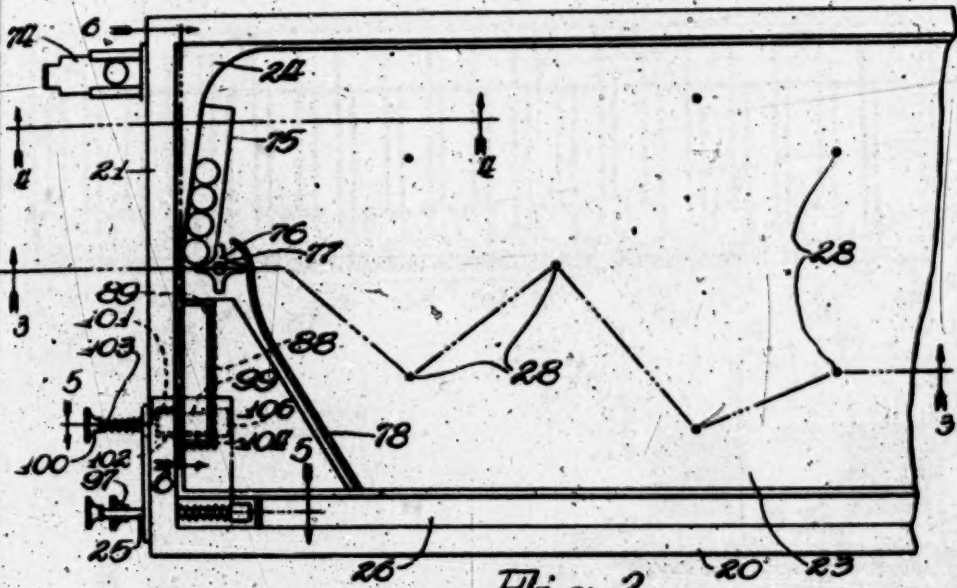


Fig. 2

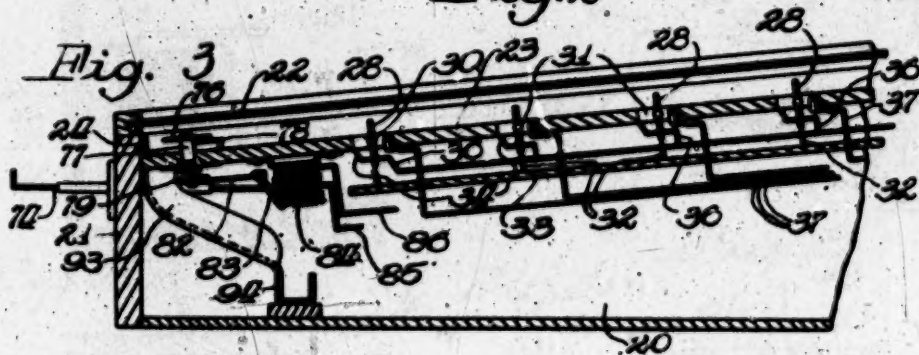
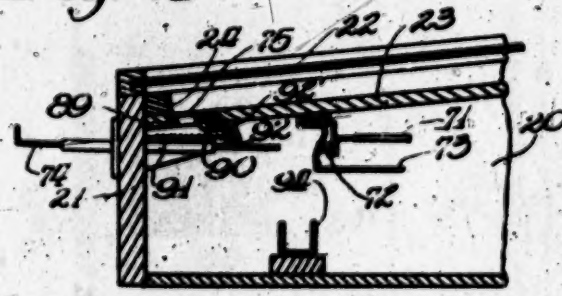


Fig. 3

Fig. 4



Inventors
 Ralph Newfeld
 Harry J. Mahs
 By Paul C. Pippel
 Att'y

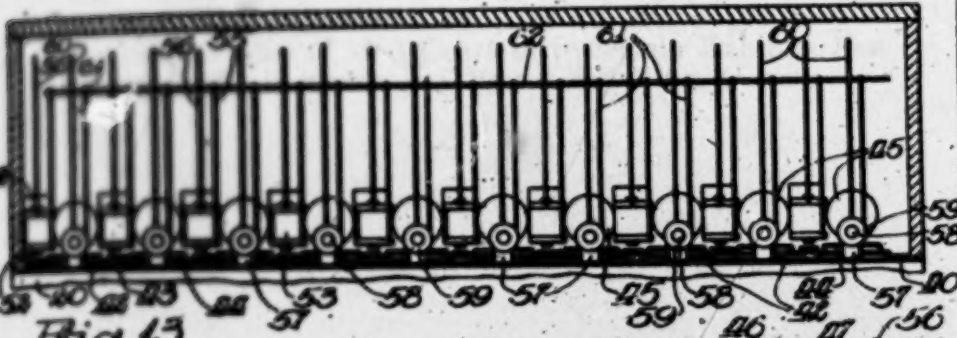


Fig. 13

Fig. 14

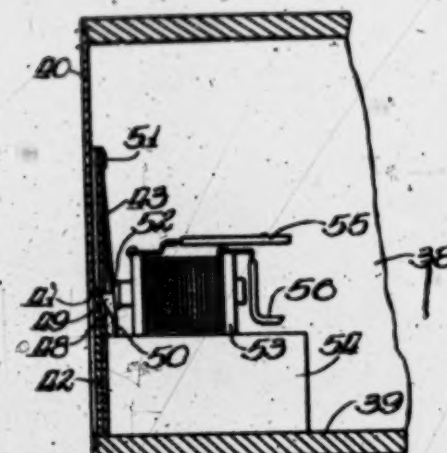
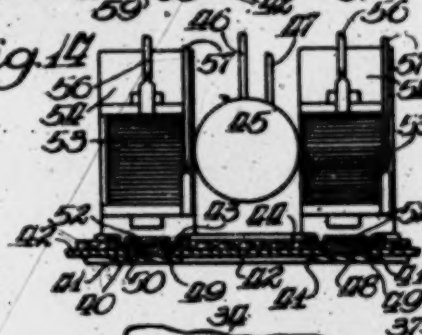


Fig. 15

Fig. 17

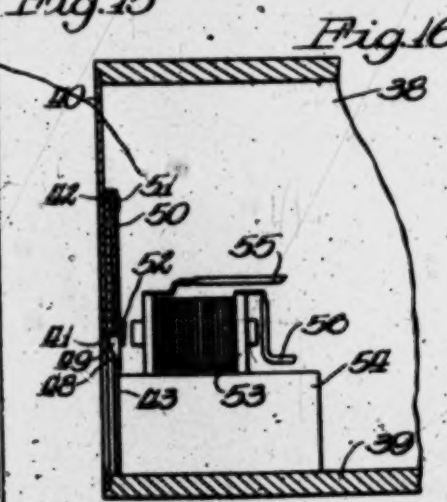
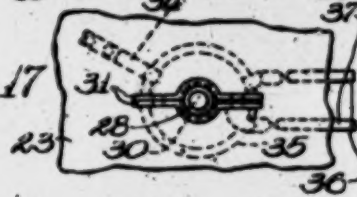
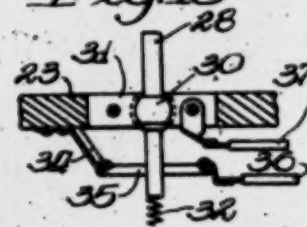


Fig. 16

Fig. 19



Fig. 18



Inventors
 Ralph Newfeld
 Harry J. Mabs
 By Anne O. Piper

Att'y.

483 And on, to wit, the 11th day of July, A. D. 1940
came the Defendants by their attorneys and filed in
the Clerk's office of said Court their certain Exhibits Nos.
38-a and 38-b in words and figures following, to wit:

Defendant's Exhibit 38-A



483

Defendant's Exhibit 38-B



433 And on, to wit, the 20th day of May, A. D. 1940 there was filed in the Clerk's office of said Court a certain Decision in words and figures following, to wit:

Filed
May 20,
1940.

434 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,
Eastern Division at Chicago.

Ace Patents Corporation, a corporation,	}	Civil Action, Equity No. 16,209
<i>vs.</i>		
The Exhibit Supply Co., a corporation.	}	Civil Action, Equity No. 16,210.
<i>vs.</i>		
Ace Patents Corporation, a corporation,	}	Civil Action, Equity No. 16,212.
<i>vs.</i>		
Genco, Inc., a corporation.	}	Civil Action, Equity No. 16,212.
<i>vs.</i>		
Ace Patents Corporation, a corporation,	}	
<i>vs.</i>		
Chicago Coin Machine Co., a corporation.	}	
<i>vs.</i>		

Before Honorable John P. Barnes, Judge.

Thursday, May 16, 1940.

Present:

Messrs. Russell, Murphy, & Pearson, By John A. Russell, Esq., and Martin M. Nelson, Esq., and Messrs. Dawson, Ooms, & Booth, By: Casper W. Ooms, Esq., Of Counsel, appeared on behalf of Ace Patents Corporation, Plaintiff;

435 Clarence E. Threedy, Esq., appeared on behalf of The Exhibit Supply Co., a corporation; Genco, Inc., a corporation; and Chicago Coin Machine Co., a corporation, Defendants.

DECISION.

The Court (Orally): The question before the Court is as to the alleged infringement and validity of Claim 4 of Nelson Patent No. 2,109,678.

Defendants rely upon a supposed File Wrapper estop-

pel. I cannot see opportunity for the application of that rule to the facts of this case. I cannot see that any changes which were made in the claims were such as to limit the claims in the manner contended for by the defendants.

I have considered these six devices which have been produced here in court, Plaintiff's Exhibits Nos. 5 and 6 manufactured by the defendant Chicago Coin Machine Company, Plaintiff's Exhibit 10 which is manufactured by the defendant Genco, Inc., and Plaintiff's Exhibits Nos. 7, 8 and 9 which are manufactured by The Exhibit Supply Company. As regard each one of those exhibits, it seems to me that the defendants have sought to produce therein the advantages of the device disclosed by the patent in suit and at the same time to escape the terms 436 of the patent. As has been said by many courts, a defendant has a perfect right to do that thing, if he can, and if he succeeds he is not liable for infringement, but, if he tries and does not succeed, then, he is an infringer, that is all there is to it. I think these defendants, while they tried to escape the terms of the patent, failed, and that each one of the devices to which I have referred does infringe Claim 4 of the patent in suit.

Having concluded that the defendants' devices infringe, the Court is forced to consider the question of validity of Claim 4.

The patents relied upon as either anticipating disclosures of the patent in suit or as showing a state of the art which would prevent the disclosures of the patent involving any inventive genius, are particularly Fisher Patent No. 501,777, the French Patent to Dabos, and some design patents Tratsch 94,290, Tratsch 94,291 and Tratsch 94,714. Hooker Patent No. 2,042,786 is referred to as showing the state of the art.

Fisher Patent No. 501,777 and the French patent to Dabos disclose Burglar-Alarm devices and methods of closing electric circuits in Burglar-Alarm devices.

The Design patents referred to show the use of spiral springs on the playing boards of so-called pin games, 437 but they do not show the use of spiral springs as switches in electric circuits.

The so-called "Bolo" game of the Pacent Novelty Manufacturing Company is relied upon as a prior use, and the supposed use by Fitch while in the employ of the Pacent Novelty Manufacturing Company of a spiral spring on

the playing board of the Bolo game is also relied upon as a prior use.

I think I may dispose of that last mentioned supposed prior use very shortly. I do not believe the testimony in respect to that supposed prior use. I do not believe there was any such prior use.

I do not think that this patent in suit is of great significance, but I do think it was a step in advance in the art of making these pin games that may be said to have involved inventive genius. No one before had used a spiral spring on the face of the board as both a target and a switch.

It seems to me that the use of the spiral spring on the face of the board had some considerable advantages. One of those advantages seems to be that, regardless of where the ball hits the spring, it operates to close the switch. That is not true of the spring switch disclosed in Hooker Patent No. 2,042,786.

Furthermore, there are elements of simplicity about the combination that as it seems to the Court, that may be of great advantage in the hands of the users of boards, such as these we are talking about, who are said not to be engineers or mechanics.

It is doubtless true that commercial success may spring from a great many different causes. Many causes may contribute to commercial success and the Courts have said that commercial success should not be used to create a doubt, but I think the commercial success which followed the adoption of the idea disclosed by this patent by one licensee may properly be considered as a make-weight in determining whether or not there was patentable novelty disclosed in this patent.

I do not think that Fisher, Dabos or Hooker anticipated the disclosures of the patent in suit.

I certainly do not think that the Design patents to Tratsch, or any of them, anticipate the disclosure of the patent in suit.

I think Claim 4 of Nelson Patent No. 2,109,678 is valid.

Counsel for the plaintiff may, within 10 days, prepare and present drafts of findings of facts, conclusions of law and a decree not inconsistent with what the Court has stated.

Counsel for the defendants may, within 15 days, present his suggestion in respect to findings of fact, conclusions of law and decree, and his observations upon those pres-

ented by the plaintiff, and the plaintiff may, within 20 days, present his reply if he has any.

After those things have been done, the Court will take the matter on the drafts of findings of fact, conclusions of law and decree and suggestions and reply, and do the best it can.

I will return to counsel the papers which have been handed to the Court during the course of the trial.

Counsel for the respective parties will take and keep, subject to the order of Court, the exhibits of their respective clients.

Enter:

Barnes,
Judge.

Filed
May 28,
1940.

32 And afterwards, to wit, on the 28th day of May, A. D. 1940, being one of the days of the regular May term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

33 IN THE DISTRICT COURT OF THE UNITED STATES
For the Northern District of Illinois,
Eastern Division.

Ace Patents Corporation, a corporation,

Plaintiff,

vs.

Exhibit Supply Company, a corporation,

Defendant.

} Equity No. 16,209

FINDINGS OF FACT AND CONCLUSIONS OF LAW.

Findings of Fact.

1. Plaintiff, Ace Patents Corporation, is a corporation of Illinois, and has its principal place of business at Chicago, Illinois.

2. Defendant, The Exhibit Supply Company, is a corporation of Illinois, and has its principal place of business at Chicago, Illinois.

3. This cause was consolidated for trial with the cases of *Ace Patents Corporation v. Chicago Coin Machine Company*, Equity No. 16,212 and *Ace Patents Corporation v. Genco, Inc.*, Equity No. 16,210.

4. The Complaint herein charged Defendant with infringement of Claim 4 of United States letters patent No. 2,109,678 issued to Raymond T. Moloney as assignee of Nels A. Nelson on March 1, 1938.

34 5. The parties have stipulated that the patent in suit is owned by Plaintiff, Ace Patents Corporation, which has all rights and interests therein and all rights to recover for past infringement thereof.

6. Plaintiff charged infringement of Claim 4 of the patent in suit, which reads as follows:

4. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and the upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

7. The infringement charged is the manufacture and sale by Defendant after March 1, 1938 of amusement devices known as pin tables embodying bumper spring switches of the type exemplified by the devices in evidence as Plaintiff's Exhibits 7, 8 and 9.

8. Pin tables are a widely used amusement device comprising an inclined playing board mounted in an appropriate cabinet so that balls may be successively delivered from within the cabinet to the board and there projected by the player upon the top of the board. The balls roll by gravity across the board into an inactive position at its lower end.

35 Various obstacles and targets have been employed upon the board against or into which the operator of the device attempts to direct the balls, and various hazards are mounted upon the board to deflect the course

of the balls as they roll down the table. The simplest form of this device is one in which the targets are holes in the board given arbitrary score values. Below the board a shutter plate is slidably mounted to retain in sight the balls that fall into one of the target holes, so that when all of the balls have been projected upon the board the skill of the operator can be determined by adding up the scores which have been indicated for the holes into which the operator has successfully projected balls. When the board was prepared for the next play the shutter would be moved to drop all of the balls which were located in the target holes into the cabinet beneath the board. Subsequently these holes were provided with electrical switches of various kinds by which the ball, either in entering the hole or in passing through the hole, would operate a switch mounted beneath the board to close an electrical circuit by which a scoring or registering device would be operated to indicate that a ball had passed through the target hole.

9. The targets or obstacles used upon pin tables have been of many kinds, but most of them were accessible to a ball only from a single direction, and many of them were so constructed that a ball which had once encountered a target was disabled and rendered inactive.

36. 10. The device invented by Nelson consists of a spiral spring pendantly supported upon a simple vertical standard above the playing board of a pin table to form one of the hazards or targets toward which the operator of the pin table directs the ball. The support for the spring and the spring itself compose one of the elements of an electric circuit. One end of the spring is so arranged with respect to a companion contact element mounted upon the playing board adjacent to the standard that when the spring is struck from any direction the end of the spring strikes the companion contact element, completing the electrical circuit so that electricity flows through the spring and companion contact element to operate a relay or signal upon the pin table to indicate or register the success of the operator who is operating the pin table. From twelve to eighteen of these bumper spring switches are mounted on the board of each pin table in which the device is employed.

11. The advantages of the device invented by Nelson lie in the fact that this simple structure forms both a target and a switch, a target which is accessible from any direction and so resilient that the ball which strikes it rebounds and thus increases the activity on the board, that a ball

striking it is not disabled and may continue in its course about and down the board to strike similar targets about the board, that the device is extremely simple and requires no skill to install, that the device has no pivots or crevices into which dirt might enter to disable it, that the device can be adjusted merely by rotating the spring about the standard upon which it is centrally mounted, and that if the device does go out of adjustment this can be immediately detected by superficial examination of the playing board surface without the removal of any portions of the game cabinet.

12. The devices employed by Defendant upon the pin tables manufactured and sold by it, possess all of the advantages enumerated with respect to the device of the Nelson patent and perform exactly the same function as that device in precisely the same manner. The only differences between the devices manufactured and sold by Defendant and that illustrated in the Nelson patent lie in the manner in which the companion contact element is mounted on the pin board. In the Nelson patent this element is shown as a ferrule embedded in the board directly beneath the spring so that the elongated end of the spring is centered in the ferrule. In Defendant's device, Plaintiff's Exhibit 7, the spring terminates in a small loop and the companion contact element is in the form of a pin centered within the loop and driven into the playing board. In Defendant's later device, Plaintiff's Exhibit 8, instead of employing a pin driven directly into the board the companion contact element is made in the form of a sleeve mounted on the standard and separated from the standard by an intermediate sleeve of insulating material. In the third device of Defendant, Plaintiff's Exhibit 9, the companion contact is a metal band about a shell of plastic material which is suspended from the central standard and thus secured to the board.

13. The defenses asserted and relied upon by the Defendant are that the Nelson patent is invalid because of anticipation by or lack of invention over the following United States and foreign letters patent:

Patent No.	Date	Patentee
501,777	July 18, 1893	Fisher
1,057,879	Apr. 1, 1913	Quain
1,319,038	Oct. 21, 1919	Beeler
1,578,573	July 24, 1928	Nakashima
1,808,060	June 2, 1931	Neubeck
2,053,379	Sept. 8, 1936	Shyvers et al.
2,188,037	May 24, 1938	Fischer

French Pat. No. 541,079 July 22, 1922 to Dabos and as showing no invention over the following letters patent introduced to show the state of the art:

Patent No.	Date	Patentee
Des. 94,290	Jan. 8, 1935	Tratsch
De. 94,291	Jan. 8, 1935	Tratsch
Des. 94,714	Feb. 26, 1935	Tratsch
2,037,108	Apr. 14, 1936	Bechtol
2,042,786	June 2, 1936	Hooker,

and the abandoned application of Neufeld and Mabs, that the patent in suit was anticipated by the prior invention of one Ellsworth M. Fitch who was an employee of Pacent Novelty Manufacturing Company of Utica, New York, and also anticipated by the manufacture of the switch employed in the Bolo game produced by that company in the summer of 1936, and that Plaintiff is precluded by proceedings in the Patent Office from reading Claim 4 upon Defendant's device.

39 14. Two patents particularly relied on were illustrated by physical models introduced into evidence as showing a possible application of the disclosures of Fisher patent No. 501,777 and the French patent to Dabos, both of which disclose complex burglar alarm devices in which coil springs are used as part of the switch structure. Neither of these patents suggests a target or obstacle for a pin table in which the target or obstacle is formed of a simple coil spring pendantly supported which also forms the contact switch for the electrical circuit.

15. The patents relied upon to show the state of the art do show the use of small spiral springs on playing boards of pin tables but they do not suggest or show the use of spiral springs as switches in electrical circuits.

16. The Bolo game manufactured and sold by Pacent Novelty Manufacturing Company of Utica, New York in the summer of 1936 shows a number of comparatively complex switches mounted beneath the board, upon each of which a small replica of a bowling pin is mounted above the board and forms the target for the ball. When this pin is struck it pivots upon the board and serves as one end of a lever to swing a long wire into contact with an annular ring mounted beneath the board. The coil spring employed is in conical form and merely restores the bowling pin to its upright position after the pin has been struck. The spring is not struck by the ball and is not pendantly supported. This device is wholly mounted beneath the table

and is far more complex than that invented by Nelson. It does not perform the same function as the Nelson device nor does it perform its function in a similar manner.

17. Defendant also relied upon the alleged prior invention by one Ellsworth M. Fitch, who was employed by the Pacent Novelty Manufacturing Company, of a switch substantially like that shown in the Nelson patent except that the spring was of comparatively narrow diameter and substantially smaller than that as shown by Nelson and employed by the Defendant. The only physical evidence produced with respect to this defense is a pair of small coil springs produced by one of the witnesses, who stated that he had had them in a box of odds and ends for many years. Besides Fitch, John Grimm, Martin Grimm, and Sol Silverstein testified as to Fitch's production of this device. John and Martin Grimm were employees and interested stockholders of Pacent Novelty Manufacturing Company. Sol Silverstein became an employee of that company late in 1936, and is now a salesman for Chicago Coin Machine Company. He testified to having seen the Fitch device in June or July, 1936, while passing through the plant of Pacent Novelty Manufacturing Company.

18. When Pacent Novelty Manufacturing Company began making pin tables with the bumper spring switch of the Nelson invention in the spring of 1937, it used a spring which was identical with that employed by the only licensee of Plaintiff, a company which introduced this device on pin tables and produced a large number of them. The only difference between the spring used by Pacent and that introduced by Plaintiff's licensee was that the spring
41 used by Pacent was made of phosphor-bronze instead of spring steel. The dimensions were identical.

19. Neither Fitch, Pacent Novelty Manufacturing Company, nor any of the witnesses to the alleged prior invention of Fitch, all of whom were interested in the production of tables embodying this device early in 1937, ever laid claim to or asserted or mentioned the prior invention of Fitch at any time until depositions were taken in this case in the summer of 1939, although the device of Nelson went into wide public use immediately on its introduction. Fitch sold his rights in his alleged invention to Sol Silverstein in April, 1939, and filed an application for his alleged invention in October 1939.

20. A former employee of Pacent Novelty Manufactur-

ing Company, Von Stoesser, who was chief engineer in charge of that company's production, engineering and development work and Fitch's immediate superior from October 1936 to the failure of the Pacent Novelty Manufacturing Company in the spring of 1937, testified that no device like that alleged to have been invented by Fitch was in the laboratory of the company or worked on while he was there, and that the pin table employing the bumper spring switch made by Plaintiff's licensee was first exhibited to John and Martin Grimm early in January, 1937. Grimm said, "Why didn't we think of putting springs upon a game like ours?" and thereafter one of Plaintiff's licensee's pin tables was brought into the Pacent plan and one of the bumper spring switches removed and copied.

42 Pacent Novelty Manufacturing Company sent one of the springs to Accurate Spring Manufacturing Company and had phosphor-bronze copies made, and Pacent subsequently used those springs on its pin table sold in the trade under the name Stop 'Em.

21. The testimony with respect to the alleged production of this type of bumper spring switch in June of 1936 by Fitch is incredible. The Court finds that that alleged prior use does not exist.

—22. The bumper spring switch of the Nelson patent, upon its introduction, was widely copied and the device enjoyed an extremely substantial commercial success.

23. Lion Manufacturing Company, operating under an oral license from Plaintiff, began the commercial production of pin tables embodying the Nelson invention in December, 1936, and by May 1, 1940, had made and sold 78,082 of these pin tables with an aggregate value in excess of six million dollars, although the price of this pin table was approximately 15% higher than similar tables manufactured prior to that time. That company employed the same sales and advertising activities with respect to pin tables equipped with the Nelson invention which had been employed with respect to their other products manufactured before that time, but its business immediately showed a substantial improvement when pin tables equipped with the Nelson invention were marketed.

24. The sale of 78,082 pin tables equipped with the Nelson invention by Plaintiff's licensee represented about
43 35% of the total output of the industry in pin tables equipped with bumper spring switches.

25. Early in 1937 competitors of Lion Manufacturing

Company began manufacturing and selling pin tables equipped with bumper spring switches embodying the Nelson invention. In their advertising they emphasized the presence of that type of switch upon the pin tables they were offering for sale. In their advertisements many of them reproduced enlarged illustrations of the device of the Nelson patent.

26. The structure of device of the Nelson patent is not shown or suggested in any of the patents relied upon by Defendant, or in the abandoned application of Neufeld and Mabs, which shows a switch much like that employed in the Bolo game.

27. The bumper spring switches made and sold by the Defendant and illustrated by Plaintiff's Exhibits 7, 8 and 9 disclose an attempt by Defendant to utilize the invention disclosed in the Nelson patent in suit and an attempt to avoid the terms of the Nelson Claim 4. The attempt to avoid the terminology of this claim has not been successful and each of the Defendant's devices embodies all of the elements of Claim 4 in identical or equivalent form. Defendant's devices in operation perform each of the functions of the bumper spring switch of the Nelson patent in exactly the same manner as those functions are performed by the structure shown in the patent drawing.

44 28. During the prosecution of the Nelson patent application in the Patent Office, the Examiner rejected present Claim 4 as presented and demanded that Nelson insert limitations into the claim. In reply Nelson did make a change in terminology of the claim, but did not rewrite the claim as demanded by the Examiner.

Conclusions of Law.

I. This Court has jurisdiction of this cause and of the parties thereto.

II. Plaintiff is the owner of United States Letters Patent No. 2,109,678 and of all rights to recover for the infringement thereof.

III. Claim 4 of Nelson patent No. 2,109,678 is not anticipated or suggested by the prior art and is valid.

IV. Claim 4 of Nelson patent No. 2,109,678 is infringed by the bumper spring switches manufactured and sold by Defendant and exemplified by Plaintiff's Exhibits 7, 8 and 9.

V. Plaintiff is entitled to an injunction restraining the Defendant and its officers, agents and employees from making, using and selling bumper spring switches of the type exemplified in Plaintiff's Exhibits 7, 8 and 9, and any other structure which in its construction and operation will infringe Claim 4 of the Nelson patent in suit No. 2,109,678 or from offering or threatening so to do and from aiding, abetting or contributing in any way to the infringement of that patent.

45 VI. Plaintiff is entitled to a decree referring this cause to the Master for an accounting to determine the amount and extent of the damages which Plaintiff has suffered and the profit which Defendant has made by reason of Defendant's infringement of Claim 4 of the Nelson patent No. 2,109,678, and Plaintiff is entitled to judgment against Defendant for the amount so found.

VII. Plaintiff is entitled to recover from the Defendant the costs and disbursements of this suit to be taxed by the Clerk.

Barnes,

United States District Judge.

May 28, 1940.

Entered
May 28,
1940.

46 And afterwards, to wit, on the 28th day of May, A. D. 1940, being one of the days of the regular May term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

47 IN THE DISTRICT COURT OF THE UNITED STATES.

• • (Caption—16,209) • •

DECREE.

This cause having come on for trial before the Court, and witnesses having been heard and testimony and evidence having been taken and received before the Court, and counsel for the respective parties having been heard, and the Court having been fully advised, and its Findings of Fact and Conclusions of Law having been entered, it is,

Ordered, Adjudged and Decreed:

1. Ace Patents Corporation is the owner of United

States Letters Patent No. 2,109,678 and of all rights to sue and recover for past infringement thereof.

2. Claim 4 of Nelson patent No. 2,109,678 is good and valid in law.

3. Claim 4 of Nelson patent No. 2,109,678 is and has been infringed by Defendant by the manufacture and sale of pin tables embodying bumper spring switches of the type exemplified by Plaintiff's Exhibits 7, 8 and 9.

48 4. An injunction shall issue as prayed by Plaintiff permanently restraining and enjoining the Defendant and its officers, agents and employees from making, using, or selling apparatus embodying the invention of Nelson patent No. 2,109,678 and from offering or advertising so to do and from aiding and abetting or in any way contributing to the manufacture, use or sale of such devices.

5. Plaintiff shall recover from the Defendant the damages which Plaintiff has suffered and the profits and savings which Defendant has made by reason of Defendant's infringement of Nelson patent No. 2,109,678. In order to determine the amount of such damages and profits and savings the Defendant and its officers, agents, clerks and employees shall attend before George E. Q. Johnson a Master of this Court who is hereby appointed to conduct any proceedings under this decree, from time to time as the Master shall direct, and to produce all such books, papers, reports and documents and submit to such oral examination as said Master may from time to time require.

6. The costs herein shall be taxed by the Clerk against the Defendant and execution shall issue therefor.

Barnes,

United States District Judge.

May 28, 1940.

82 And afterwards, to wit, on the 28th day of May, A. D. 1940, being one of the days of the regular May term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

Filed
May 28,
1940.

83

IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation, a corporation,

Plaintiff,

vs.

Genco, Inc., a corporation,

Defendant.

} Equity No. 16,210.

FINDINGS OF FACT AND CONCLUSIONS OF LAW.

Findings of Fact.

1. Plaintiff, Ace Patents Corporation, is a corporation of Illinois, and has its principal place of business at Chicago, Illinois.

2. Defendant, Genco, Inc., is a corporation of Illinois with its principal place of business at Chicago, Illinois.

3. This cause was consolidated for trial with the cases of *Ace Patents Corporation v. The Exhibit Supply Company*, Equity No. 16,209 and *Ace Patents Corporation v. Chicago Coin Machine Company*, Equity No. 16,212.

4. The Complaint herein charged Defendant with infringement of Claim 4 of United States Letters Patent No. 2,109,678 issued to Raymond T. Moloney as assignee of Nels A. Nelson on March 1, 1938.

84 5. The parties have stipulated that the patent in suit is owned by Plaintiff, Ace Patents Corporation, which has all rights and interests therein and all rights to recover for past infringement thereof.

6. Plaintiff charged infringement of claim 4 of the patent in suit, which reads as follows:

4. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and the upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendants from the upper portion of

the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

7. The infringement charged is the manufacture and sale by Defendant after March 1, 1938 of amusement devices known as pin tables embodying bumper spring switches of the type exemplified by the device in evidence as Plaintiff's Exhibit 10.

8. Pin tables are a widely used amusement device comprising an inclined playing board mounted in an appropriate cabinet so that balls may be successively delivered from within the cabinet to the board and there projected by the player upon the top of the board. The balls roll by gravity across the board into an inactive position at its lower end. Various obstacles and targets have been employed upon the board against or into which the operator of the device attempts to direct the balls, and various hazards are mounted upon the board to deflect the course of the balls as they roll down the table. The simplest form of this device is one in which the targets are holes in the board given arbitrary score values. Below the board a shutter plate is slidably mounted to retain in sight the balls that fall into one of the target holes, so that when all of the balls have been projected upon the board the skill of the operator can be determined by adding up the scores which have been indicated for the holes into which the operator has successfully projected balls. When the board was prepared for the next play the shutter would be moved to drop all of the balls which were located in the target holes into the cabinet beneath the board. Subsequently these holes were provided with electrical switches of various kinds by which the ball, either in entering the hole or in passing through the hole, would operate a switch mounted beneath the board to close an electrical circuit by which a scoring or registering device would be operated to indicate that a ball had passed through the target hole.

9. The targets or obstacles used upon pin tables have been of many kinds, but most of them were accessible to a ball only from a single direction, and many of them were

so constructed that a ball which had once encountered a target was disabled and rendered inactive.

86 10. The device invented by Nelson consists of a spiral spring pendently supported upon a single vertical standard above the playing board of a pin table to form one of the hazards or targets toward which the operator of the pin table directs the ball. The support for the spring and the spring itself compose one of the elements of an electric circuit. One end of the spring is so arranged with respect to a companion contact element mounted upon the playing board adjacent to the standard that when the spring is struck from any direction the end of the spring strikes the companion contact element, completing the electrical circuit so that electricity flows through the spring and companion contact element to operate a relay or signal upon the pin table to indicate or register the success of the operator who is operating the pin table. From twelve to eighteen of these bumper spring switches are mounted on the board of each pin table in which the device is employed.

11. The advantages of the device invented by Nelson lie in the fact that this simple structure forms both a target and a switch, a target which is accessible from any direction and so resilient that the ball which strikes it rebounds and thus increases the activity on the board, that a ball striking it is not disabled and may continue in its course about and down the board to strike similar targets about the board, that the device is extremely simple and requires no skill to install, that the device has no pivots or crevices into which dirt might enter to disable it, that the device can be adjusted merely by rotating the spring about the standard upon which it is centrally mounted, and that 87 if the device does go out of adjustment this can be immediately detected by superficial examination of the playing board surface without the removal of any portions of the game cabinet.

12. The bumper spring switches employed by Defendant upon the pin tables manufactured and sold by it, possess all of the advantages enumerated with respect to the device of the Nelson patent and perform exactly the same function as that device in precisely the same manner. The only differences between the device manufactured and sold by Defendant and that illustrated in the Nelson patent lie in the manner in which the companion contact element is mounted on the pin board. In the Nelson patent this ele-

ment is shown as a ferrule embedded in the board directly beneath the spring so that the elongated end of the spring is centered in the ferrule. In defendant's device, Plaintiff's Exhibit 10, the spring terminates in a small loop and the companion contact element is made in the form of a pin, centered within the loop, mounted in a metal plate which is mounted snugly against the board and secured to it by the central standard.

13. The defenses asserted and relied upon by the Defendant are that the Nelson patent is invalid because of anticipation by or lack of invention over the following United States and foreign letters patent:

Patent No.	Date	Patentee
501,777	July 18, 1893	Fisher
1,057,879	Apr. 1, 1913	Quain
1,319,038	Oct. 21, 1919	Beeler
88 1,678,573	July 24, 1928	Nakashima
1,808,060	June 2, 1931	Neubeck
2,053,379	Sept. 8, 1936	Shyvers et al.
2,188,037	May 24, 1938	Fischer
French Pat. No. 541,079 July 22, 1922 to Dabos		

and as showing no invention over the following letters patent introduced to show the state of the art:

Patent No.	Date	Patentee
Des. 94,290	Jan. 8, 1935	Tratsch
Des. 94,291	Jan. 8, 1935	Tratsch
Des. 94,714	Feb. 26, 1935	Tratsch
2,037,108	Apr. 14, 1936	Bechtol
2,042,786	June 2, 1936	Hooker

and the abandoned application of Neufeld and Mabs, that the patent in suit was anticipated by the prior invention of one Ellsworth M. Fitch who was an employee of Pacent Novety Manufacturing Company of Utica, New York, and also anticipated by the manufacture of the switch employed in the Bolo game produced by that company in the summer of 1936, and that Plaintiff is precluded by proceedings in the Patent Office from reading Claim 4 upon Defendant's device.

14. Two patents particularly relied on were illustrated by physical models introduced into evidence as showing a possible application of the disclosures of Fisher patent No. 501,777 and the French patent to Dabos, both of which disclose complex burglar alarm devices in which coil springs are used as part of the switch structure. Neither of these

patents suggests a target or obstacle for a pin table
89 in which the target or obstacle is formed of a simple coil spring pendantly supported which also forms the contact switch for the electrical circuit.

15. The patents relied upon to show the state of the art do show the use of small spiral springs on playing boards of pin tables but they do not suggest or show the use of spiral springs as switches in electrical circuits.

16. The Bolo game manufactured and sold by Pacent Novelty Manufacturing Company of Utica, New York in the summer of 1936 shows a number of comparatively complex switches mounted beneath the board, upon each of which a small replica of a bowling pin is mounted above the board and forms the target for the ball. When this pin is struck it pivots upon the board and serves as one end of a lever to swing a long wire into contact with an annular ring mounted beneath the board. The coil spring employed is in conical form and merely restores the bowling pin to its upright position after the pin has been struck. The spring is not struck by the ball and is not pendantly supported. This device is wholly mounted beneath the table and is far more complex than that invented by Nelson. It does not perform the same function as the Nelson device nor does it perform its function in a similar manner.

17. Defendant also relied upon the alleged prior invention by one Ellsworth M. Fitch, who was employed by the Pacent Novelty Manufacturing Company, of a switch substantially like that shown in the Nelson patent except that the spring was of comparatively narrow diameter
90 and substantially smaller than that as shown by Nelson and employed by the Defendant. The only physical evidence produced with respect to this defense is a pair of small coil springs produced by one of the witnesses, who stated that he had had them in a box of odds and ends for many years. Besides Fitch, John Grimm, Martin Grimm, and Sol Silverstein testified as to Fitch's production of this device. John and Martin Grimm were employees and interested stockholders of Pacent Novelty Manufacturing Company. Sol Silverstein became an employee of that company late in 1936, and is now a salesman for Chicago Coin Machine Company. He testified to having seen the Fitch device in June or July, 1936, while passing through the plant of Pacent Novelty Manufacturing Company.

18. When Pacent Novelty Manufacturing Company began making pin tables with the bumper spring switch of the Nelson invention in the spring of 1937, it used a spring which was identical with that employed by the only licensee of Plaintiff, a company which introduced this device on pin tables and produced a large number of them. The only difference between the spring used by Pacent and that introduced by Plaintiff's licensee was that the spring used by Pacent was made of phosphor-bronze instead of spring steel. The dimensions were identical.

19. Neither Fitch, Pacent Novelty Manufacturing Company, nor any of the witnesses to the alleged prior invention of Fitch, all of whom were interested in the production of tables embodying this device early in 1937, ever
91 laid claim to or asserted or mentioned the prior invention of Fitch at any time until depositions were taken in this case in the summer of 1939, although the device of Nelson went into wide public use immediately on its introduction. Fitch sold his rights in his alleged invention to Sol Silverstein in April, 1939, and filed an application for his alleged invention in October 1939.

20. A former employee of Pacent Novelty Manufacturing Company, von Stoesser, who was chief engineer in charge of that company's production, engineering and developing work and Fitch's immediate superior from October 1936 to the failure of the Pacent Novelty Manufacturing Company in the spring of 1937, testified that no device like that alleged to have been invented by Fitch was in the laboratory of the company or worked on while he was there, and that the pin table employing the bumper spring switch made by Plaintiff's licensee was first exhibited to John and Martin Grimm early in January, 1937. Grimm said, "Why didn't we think of putting springs upon a game like ours?" and thereafter one of plaintiff's licensee's pin tables was brought into the Pacent plant and one of the bumper spring switches removed and copied. Pacent Novelty Manufacturing Company sent one of the springs to Accurate Spring Manufacturing Company and had phosphor-bronze copies made, and Pacent subsequently used those springs on its pin table sold in the trade under the name Stop 'Em.

21. The testimony with respect to the alleged production of this type of bumper spring switch in June
92 of 1936 by Fitch is incredible. The Court finds that that alleged prior use does not exist.

22. The bumper spring switch of the Nelson patent, upon its introduction, was widely copied and the device enjoyed an extremely substantial commercial success.

23. Lion Manufacturing Company, operating under an oral license from Plaintiff, began the commercial production of pin tables embodying the Nelson invention in December, 1936, and by May 1, 1940, had made and sold 78,082 of these pin tables with an aggregate value in excess of six million dollars, although the price of this pin table was approximately 15% higher than similar tables manufactured prior to that time. That company employed the same sales and advertising activities with respect to pin tables equipped with the Nelson invention which had been employed with respect to their other products manufactured before that time, but its business immediately showed a substantial improvement when pin tables equipped with the Nelson invention were marketed.

24. The sale of 78,082 pin tables equipped with the Nelson invention by Plaintiff's licensee represented about 35% of the total output of the industry in pin tables equipped with bumper spring switches.

25. Early in 1937 competitors of Lion Manufacturing Company began manufacturing and selling pin tables equipped with bumper spring switches embodying the Nelson invention. In their advertising they emphasized the presence of that type of switch upon the pin tables they were offering for sale. In their advertisements many of them reproduced enlarged illustrations of the device of the Nelson patent.

26. The structure of device of the Nelson patent is not shown or suggested in any of the patents relied upon by Defendant, or in the abandoned application of Neufeld and Mabs, which shows a switch much like that employed in the Bolo game.

27. The bumper spring switches made and sold by the defendant and illustrated by Plaintiff's Exhibit 10 disclose an attempt by Defendant to utilize the invention disclosed in the Nelson patent in suit and an attempt to avoid the terms of the Nelson Claim 4. The attempt to avoid the terminology of this claim has not been successful and each of the Defendant's devices embodies all of the elements of Claim 4 in identical or equivalent form. Defendant's devices in operation perform each of the functions of the bumper-spring switch of the Nelson patent

in exactly the same manner as those functions are performed by the structure shown in the patent drawing.

28. During the prosecution of the Nelson patent application in the Patent Office, the Examiner rejected present claim 4 as presented and demanded that Nelson insert limitations into the claim. In reply Nelson did make a change in terminology of the claim, but did not rewrite the claim as demanded by the Examiner.

94

Conclusions of Law.

I. This Court has jurisdiction of this cause and of the parties thereto.

II. Plaintiff is the owner of United States Letters Patent No. 2,109,678 and of all rights to recover for the infringement thereof.

III. Claim 4 of Nelson patent No. 2,109,678 is not anticipated or suggested by the prior art and is valid.

IV. Claim 4 of Nelson patent No. 2,109,678 is infringed by the bumper spring switches manufactured and sold by Defendant and exemplified by Plaintiff's Exhibit 10.

V. Plaintiff is entitled to an injunction restraining the Defendant and its officers, agents and employees from making, using and selling bumper spring switches of the type exemplified in Plaintiff's Exhibit 10, and any other structure which in its construction and operation will infringe Claim 4 of the Nelson patent in suit No. 2,109,678 or from offering or threatening so to do and from aiding, abetting or contributing in any way to the infringement of that patent.

VI. Plaintiff is entitled to a decree referring this cause to the Master for an accounting to determine the amount and extent of the damage which Plaintiff has suffered and the profit which Defendant has made by reason of Defendant's infringement of Claim 4 of the Nelson patent No. 2,109,678, and Plaintiff is entitled to judgment against Defendant for the amount so found.

95 VII. Plaintiff is entitled to recover from the defendant the costs and disbursements of this suit to be taxed by the Clerk.

Barnes,
United States District Judge.

May 28, 1940.

96 And afterwards, to wit, on the 28th day of May, A. D. 1940, being one of the days of the regular May term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

97 IN THE DISTRICT COURT OF THE UNITED STATES.
* * * (Caption—16,210) * *

DECREE.

This cause having come on for trial before the Court, and witnesses having been heard and testimony and evidence having been taken and received before the Court, and counsel for the respective parties having been heard, and the Court having been fully advised, and its Findings of Fact and Conclusions of Law having been entered, it is,

Ordered, Adjudged and Decreed:

1. Ace Patents Corporation is the owner of United States letters patent No. 2,109,678 and of all rights to sue and recover for past infringement thereof.

2. Claim 4 of Nelson patent No. 2,109,678 is good and valid in law.

3. Claim 4 of Nelson patent No. 2,109,678 is and has been infringed by Defendant by the manufacture and sale of pin tables embodying bumper spring switches of the type exemplified by Plaintiff's Exhibit 10.

98 4. An injunction shall issue as prayed by Plaintiff permanently restraining and enjoining the Defendant and its officers, agents and employees from making, using, or selling apparatus embodying the invention of Nelson patent No. 2,109,678 and from offering or advertising so to do and from aiding and abetting or in any way contributing to the manufacture, use or sale of such devices.

5. Plaintiff shall recover from the Defendant the damages which Plaintiff has suffered and the profits and savings which Defendant has made by reason of Defendant's infringement of Nelson patent No. 2,109,678. In order to determine the amount of such damages and profits and savings the Defendant and its officers, agents, clerks and

employees shall attend before George E. Q. Johnson a Master of this Court who is hereby appointed to conduct any proceedings under this decree, from time to time as the Master shall direct, and to produce all such books, papers, reports and documents and submit to such oral examination as said Master may from time to time require.

6. The costs herein shall be taxed by the Clerk against the defendant and execution shall issue therefor.

Barnes,
United States District Judge.

May 28, 1940.

133 And afterwards, to wit, on the 28th day of May, A. D. 1940, being one of the days of the regular May term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

Filed
May 28,
1940.

134 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation, a corporation,	} Plaintiff,	Equity No. 16,212.
<i>vs.</i>		
Chicago Coin Machine Company, a corporation,		
	Defendant.	

FINDINGS OF FACT AND CONCLUSIONS OF LAW.

Findings of Fact.

1. Plaintiff, Ace Patents Corporation, is a corporation of Illinois, and has its principal place of business at Chicago, Illinois.

2. Defendant, Chicago Coin Machine Company, is a corporation of Illinois, and has its principal place of business at Chicago, Illinois.

3. This cause was consolidated for trial with the cases

of Ace Patents Corporation *vs.* The Exhibit Supply Company, Equity No. 16,209 and Ace Patents Corporation *vs.* Genco, Inc., Equity No. 16210.

4. The Complaint herein charged Defendant with infringement of Claim 4 of United States Letters Patent No. 2,109,678 issued to Raymond T. Moloney as assignee of Nels A. Nelson on March 1, 1938.

135 5. The parties have stipulated that the patent in suit is owned by Plaintiff, Ace Patents Corporation, which has all rights and interests therein and all rights to recover for past infringement thereof.

6. Plaintiff charged infringement of Claim 4 of the patent in suit, which reads as follows:

4. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and the upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantsly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

7. The infringement charged is the manufacture and sale by Defendant after March 1, 1938 of amusement devices known as pin tables embodying bumper spring switches of the type exemplified by the devices in evidence as Plaintiff's Exhibits 5 and 6.

8. Pin tables are a widely used amusement device comprising an inclined playing board mounted in an appropriate cabinet so that balls may be successively delivered from within the cabinet to the board and there projected by the player upon the top of the board. The balls roll by gravity across the board into an inactive position
136 at its lower end. Various obstacles and targets have been employed upon the board against or into which the operator of the device attempts to direct the balls, and various hazards are mounted upon the board to de-

flect the course of the balls as they roll down the table. The simplest form of this device is one in which the targets are holes in the board given arbitrary score values. Below the board a shutter plate is slidably mounted to retain in sight the balls that fall into one of the target holes, so that when all of the balls have been projected upon the board the skill of the operator can be determined by adding up the scores which have been indicated for the holes into which the operator has successfully projected balls. When the board was prepared for the next play the shutter would be moved to drop all of the balls which were located in the target holes into the cabinet beneath the board. Subsequently these holes were provided with electrical switches of various kinds by which the ball, either in entering the hole or in passing through the hole, would operate a switch mounted beneath the board to close an electrical circuit by which a scoring or registering device would be operated to indicate that a ball had passed through the target hole.

9. The targets or obstacles used upon pin tables have been of many kinds, but most of them were accessible to a ball only from a single direction, and many of them were so constructed that a ball which had once encountered a target was disabled and rendered inactive.

137 10. The device invented by Nelson consists of a spiral spring pendantly supported upon a simple vertical standard above the playing board of a pin table to form one of the hazards or targets toward which the operator of the pin table directs the ball. The support for the spring and the spring itself compose one of the elements of an electric circuit. One end of the spring is so arranged with respect to a companion contact element mounted upon the playing board adjacent to the standard that when the spring is struck from any direction the end of the spring strikes the companion contact element, completing the electrical circuit so that electricity flows through the spring and companion contact element to operate a relay or signal upon the pin table to indicate or register the success of the operator who is operating the pin table. From twelve to eighteen of these bumper spring switches are mounted on the board of each pin table in which the device is employed.

11. The advantages of the device invented by Nelson lie in the fact that this simple structure forms both a tar-

get and a switch, a target which is accessible from any direction and so resilient that the ball which strikes it rebounds and thus increases the activity on the board, that a ball striking it is not disabled and may continue in its course about and down the board to strike similar targets about the board, that the device is extremely simple and requires no skill to install, that the device has no pivots or crevices into which dirt might enter to disable it, that the device can be adjusted merely by rotating the spring about the standard upon which it is centrally mounted, 138 and that if the device does go out of adjustment this can be immediately detected by superficial examination of the playing board surface without the removal of any portions of the game cabinet.

12. The bumper spring switches employed by Defendant upon the pin tables manufactured and sold by it, possess all of the advantages enumerated with respect to the device of the Nelson patent and perform exactly the same function as that device in precisely the same manner. The only differences between the devices manufactured and sold by Defendant and that illustrated in the Nelson patent lie in the manner in which the companion contact element is mounted on the pin board. In the Nelson patent this element is shown as a ferrule embedded in the board directly beneath the spring so that the elongated end of the spring is centered in the ferrule. In Defendant's device, Plaintiff's Exhibit 5, the spring terminates in a small loop and the companion contact element is made in the form of a pin centered within the loop and driven into the playing board. In Defendant's other device, Plaintiff's Exhibit 6, the pin, instead of being driven directly into the board, is mounted in a metal plate which is mounted snugly against the board and secured to it by the central standard.

13. The defenses asserted and relied upon by the Defendant are that the Nelson patent is invalid because of anticipation by or lack of invention over the following United States and foreign letters patent:

139 Patent No.	Date	Patentee
501,777	July 18, 1893	Fisher
1,057,879	Apr. 1, 1913	Quain
1,319,038	Oct. 21, 1919	Beeler
1,678,573	July 24, 1928	Nakashima
1,808,060	June 2, 1931	Neubeck
2,053,379	Sept. 8, 1936	Shyvers, et al.
2,188,037	May 24, 1938	Fischer

French Pat. No. 541,079, July 22, 1922 to Dabos and as showing no invention over the following letters patent introduced to show the state of the art:

Patent No.	Date	Patentee
Des. 94,290	Jan. 8, 1935	Tratsch
Des. 94,291	Jan. 8, 1935	Tratsch
Des. 94,714	Feb. 26, 1935	Tratsch
2,037,108	Apr. 14, 1936	Bechtol
2,042,786	June 2, 1936	Hooker

and the abandoned application of Neufeld and Mabs, that the patent in suit was anticipated by the prior invention of one Ellsworth M. Fitch who was an employee of Pacent Novelty Manufacturing Company of Utica, New York, and also anticipated by the manufacture of the switch employed in the Bolo game produced by that company in the summer of 1936, and that Plaintiff is precluded by proceedings in the Patent Office from reading Claim 4 upon Defendant's device.

14. Two patents particularly relied on were illustrated by physical models introduced into evidence as showing a possible application of the disclosures of Fisher 140 patent No. 501,777 and the French patent to Dabos, both of which disclose complex burglar alarm devices in which coil springs are used as part of the switch structure. Neither of these patents suggests a target obstacle for a pin table in which the target or obstacle is formed of a simple coil spring pendantly supported which also forms the contact switch for the electrical circuit.

15. The patents relied upon to show the state of the art do show the use of small spiral springs on playing boards of pin tables but they do not suggest or show the use of spiral springs as switches in electrical circuits.

16. The Bolo game manufactured and sold by Pacent Novelty Manufacturing Company of Utica, New York in the summer of 1936 shows a number of comparatively complex switches mounted beneath the board, upon each of which a small replica of a bowling pin is mounted above the board and forms the target for the ball. When this pin is struck it pivots upon the board and serves as one end of a lever to swing a long wire into contact with an annular ring mounted beneath the board. The coil spring employed is in conical form and merely restores the bowling pin to its upright position after the pin has been struck. The spring is not struck by the ball and is not

pendantly supported. This device is wholly mounted beneath the table and is far more complex than that invented by Nelson. It does not perform the same function as the Nelson device nor does it perform its function in a similar manner.

141 17. Defendant also relied upon the alleged prior invention by one Ellsworth M. Fitch, who was employed by the Pacent Novelty Manufacturing Company, of a switch substantially like that shown in the Nelson Patent except that the spring was of comparatively narrow diameter and substantially smaller than that as shown by Nelson and employed by the Defendant. The only physical evidence produced with respect to this defense is a pair of small coil springs produced by one of the witnesses, who stated that he had them in a box of odds and ends for many years. Besides Fitch, John Grimm, Martin Grimm, and Sol Silverstein testified as to Fitch's production of this device. John and Martin Grimm were employees and interested stockholders of Pacent Novelty Manufacturing Company. Sol Silverstein became an employee of that company late in 1936, and is now a salesman for Chicago Coin Machine Company. He testified to having seen the Fitch device in June or July, 1936, while passing through the plant of Pacent Novelty Manufacturing Company.

18. When Pacent Novelty Manufacturing Company began making pin tables with the bumper spring switch of the Nelson invention in the spring of 1937, it used a spring which was identical with that employed by the only licensee of Plaintiff, a company which introduced this device on pin tables and produced a large number of them. The only difference between the spring used by Pacent and that introduced by Plaintiff's licensee was that the spring used by Pacent was made of phosphor-bronze instead of spring steel. The dimensions were identical.

142 19. Neither Fitch, Pacent Novelty Manufacturing Company, nor any of the witnesses to the alleged prior invention of Fitch, all of whom were interested in the production of tables embodying this device early in 1937, ever laid claim to or asserted or mentioned the prior invention of Fitch at any time until depositions were taken in this case in the summer of 1939, although the device of Nelson went into wide public use immediately on its introduction. Fitch sold his rights in his

alleged invention to Sol Silverstein in April, 1939, and filed an application for his alleged invention in October, 1939.

20. A former employee of Pacent Novelty Manufacturing Company, Von Stoesser, who was chief engineer in charge of that company's production, engineering and development work and Fitch's immediate superior from October, 1936 to the failure of the Pacent Novelty Manufacturing Company in the spring of 1937, testified that no device like that alleged to have been invented by Fitch was in the laboratory of the company or worked on while he was there, and that the pin table employing the bumper spring switch made by Plaintiff's licensee was first exhibited to John and Martin Grimm early in January, 1937. Grimm said, "Why didn't we think of putting springs upon a game like ours?" and thereafter one of Plaintiff's licensee's pin tables was brought into the Pacent plant and one of the bumper spring switches removed and copied. Pacent Novelty Manufacturing Company sent one of the springs to Accurate Spring Manufacturing Company and had phosphor-bronze copies made, and Pacent subsequently used those springs on its pin table sold in the trade under the name Stop 'Em.

143 21. The testimony with respect to the alleged production of this type of bumper spring switch in June of 1936 by Fitch is incredible. The Court finds that that alleged prior use does not exist.

22. The bumper spring switch of the Nelson patent, upon its introduction, was widely copied and the device enjoyed an extremely substantial commercial success.

23. Lion Manufacturing Company, operating under an oral license from Plaintiff, began the commercial production of pin tables embodying the Nelson invention in December, 1936, and by May 1, 1940, had made and sold 78,082 of these pin tables with an aggregate value in excess of six million dollars, although the price of this pin table was approximately 15% higher than similar tables manufactured prior to that time. That company employed the same sales and advertising activities with respect to pin tables equipped with the Nelson invention which had been employed with respect to their other products manufactured before that time, but its business immediately showed a substantial improvement when pin tables equipped with the Nelson invention were marketed.

24. The sale of 78,082 pin tables equipped with the Nelson invention by Plaintiff's licensee represented about 35% of the total output of the industry in pin tables equipped with bumper spring switches.

25. Early in 1937 competitors of Lion Manufacturing Company began manufacturing and selling pin tables equipped with bumper spring switches embodying the 144 Nelson invention. In their advertising they emphasized the presence of that type of switch upon the pin tables they were offering for sale. In their advertisements many of them reproduced enlarged illustrations of the device of the Nelson patent.

26. The structure of device of the Nelson patent is not shown or suggested in any of the patents relied upon by Defendant, or in the abandoned application of Netfeld and Mabs, which shows a switch much like that employed in the Bolo game.

27. The bumper spring switches made and sold by the Defendant and illustrated by Plaintiff's Exhibits 5 and 6 disclose an attempt by Defendant to utilize the invention disclosed in the Nelson patent in suit and an attempt to avoid the terms of the Nelson Claim 4. The attempt to avoid the terminology of this claim has not been successful and each of the Defendant's devices embodies all of the elements of Claim 4 in identical or equivalent form. Defendant's devices in operation perform each of the functions of the bumper spring switch of the Nelson patent in exactly the same manner as those functions are performed by the structure shown in the patent drawing.

28. During the prosecution of the Nelson patent application in the Patent Office, the Examiner rejected present Claim 4 as presented and demanded that Nelson insert limitations into the claim. In reply Nelson did make a change in terminology of the claim, but did not rewrite the claim as demanded by the Examiner.

I. This Court has jurisdiction of this cause and of the parties thereto.

II. Plaintiff is the owner of United States Letters Patent No. 2,109,678 and of all rights to recover for the infringement thereof.

III. Claim 4 of the Nelson patent No. 2,109,678 is not anticipated or suggested by the prior art and is valid.

IV. Claim 4 of the Nelson patent No. 2,109,678 is infringed by the bumper spring switches manufactured and sold by Defendant and exemplified by Plaintiff's Exhibits 5 and 6.

V. Plaintiff is entitled to an injunction restraining the Defendant and its officers, agents and employees from making, using and selling bumper spring switches of the type exemplified in Plaintiff's Exhibits 5 and 6, and any other structure which in its construction and operation will infringe Claim 4 of the Nelson patent in suit No. 2,109,678 or from offering or threatening so to do and from aiding, abetting or contributing in any way to the infringement of that patent.

VI. Plaintiff is entitled to a decree referring this cause to the Master for an accounting to determine the amount and extent of the damages which Plaintiff has suffered and the profit which Defendant has made by reason of Defendant's infringement of Claim 4 of the Nelson patent No. 2,109,678 and Plaintiff is entitled to judgment against Defendant for the amount so found.

146 VII. Plaintiff is entitled to recover from the Defendant the costs and disbursements of this suit to be taxed by the Clerk.

Barnes,

United States District Judge.

May 28, 1940.

147 And afterwards, to wit, on the 28th day of May, A. D. 1940, being one of the days of the regular May term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

Entered
May 28,
1940.

148 IN THE DISTRICT COURT OF THE UNITED STATES.

• • (Caption—16,212) • •

DECREE.

This cause having come on for trial before the Court and witnesses having been heard and testimony and evidence having been taken and received before the Court, and counsel for the respective parties having been heard, and the Court having been fully advised, and its Find-

ings of Fact and Conclusions of Law having been entered, it is

Ordered, Adjudged and Decreed:

1. Ace Patents Corporation is the owner of United States Letters Patent No. 2,109,678 and of all rights to sue and recover for past infringement thereof.

2. Claim 4 of Nelson patent No. 2,109,678 is good and valid in law.

3. Claim 4 of Nelson patent No. 2,109,678 is and has been infringed by Defendant by the manufacture and sale of pin tables embodying bumper spring switches of the type exemplified by Plaintiff's Exhibits 5 and 6.

149. 4. An injunction shall issue as prayed by plaintiff permanently restraining and enjoining the Defendant and its officers, agents, and employees from making, using, or selling apparatus embodying the invention of Nelson patent No. 2,109,678 and from offering or advertising so to do and from aiding and abetting or in any way contributing to the manufacture, use or sale of such devices.

5. Plaintiff shall recover from the Defendant the damages which Plaintiff has suffered and the profits and savings which Defendant has made by reason of Defendant's infringement of Nelson patent No. 2,109,678. In order to determine the amount of such damages and profits and savings the Defendant and its officers, agents, clerks and employees shall attend before George E. Q. Johnson, a Master of this Court who is hereby appointed to conduct any proceedings under this decree, from time to time as the Master shall direct, and to produce all such books, papers, reports and documents and submit to such oral examination as said Master may from time to time require.

6. The costs herein shall be taxed by the Clerk against the Defendant and execution shall issue therefor.

Barnes,

United States District Judge.

May 28, 1940.

560 And afterwards, to wit, on the 17th day of June, A. D. 1940, being one of the days of the regular June term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

Filed
June 17,
1940.

561 IN THE DISTRICT COURT OF THE UNITED STATES,
For the Northern District of Illinois,
Eastern Division.

Ace Patents Corporation, a corporation,	} Civil Action No. 16,209.
<i>Plaintiff,</i>	
<i>vs.</i>	
Exhibit Supply Company, a corporation,	} Defendant.
<i>Defendant.</i>	

SUPERSEDEAS ORDER.

Now comes the defendant named in the above entitled cause by its attorney, Clarence E. Threedy, and prays for a supersedeas order as to all proceedings in this cause including injunction, accounting and costs during the pendency of an appeal to the United States Circuit Court of Appeals for the Seventh Circuit from the decree heretofore entered in this cause;

Whereupon, it is ordered that upon the filing of a bond in the penal sum of Ten Thousand Dollars with surety to be approved by the court, the said appeal shall operate as a supersedeas and all further proceedings in said cause, including the effect of the injunction, accounting and collection of costs shall be stayed during the pendency of said appeal.

Barnes,
United States District Judge.

Entered this 17th day of June, 1940.

Filed
June 18,
1940.

49 And on, to wit, the 18th day of June, A. D. 1940, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Notice of Appeal in words and figures following, to wit:

50 IN THE DISTRICT COURT OF THE UNITED STATES
For the Northern District of Illinois,
Eastern Division.

Ace Patents Corporation, a corporation, <i>Plaintiff,</i>	} Equity No. 16,209.
<i>vs.</i>	
The Exhibit Supply Company, a corporation, <i>Defendant.</i>	

NOTICE OF APPEAL.

To: Hon. Hoyt King, Clerk,
United States District Court,
U. S. Court House,
Chicago, Illinois.
Russell, Murphy & Pearson,
135 South La Salle Street,
Chicago, Illinois.
Casper W. Ooms,
209 South La Salle Street,
Chicago, Illinois,
Attorneys for Plaintiff.

Please Take Notice that defendant, The Exhibit Supply Company, a corporation appeals to the United States Circuit Court of Appeals for the Seventh Circuit from the decree entered herein on the 28th day of May, 1940, finding claim 4 of the Nelson Patent No. 2,109,678 in suit valid and infringed and granting a permanent injunction and awarding an accounting for damages, profits and costs against defendant.

Clarence E. Threedy,
111 W. Washington Street,
George H. Simmons,
Counsel for Defendant.

Chicago, Illinois,
June 18, 1940.

54 And on; to wit, the 1st day of July, A. D. 1940 came the Defendant-Appellant by its attorneys and filed in the Clerk's office of said Court its certain Statement of Points in words and figures following, to wit:

55 · IN THE DISTRICT COURT OF THE UNITED STATES.
· · (Caption—16,209) · ·

STATEMENT BY DEFENDANT OF THE POINTS ON WHICH IT INTENDS TO RELY ON APPEAL UNDER RULE 75, SUBDIVISION D OF THE FEDERAL RULES OF CIVIL PROCEDURE.

I.

The court erred in finding and decreeing that the devices of The Exhibit Supply Company (Pltf. Exh. 7, 8 and 9) infringed claim 4 of United States Letters Patent No. 2,109,678 granted to Nels A. Nelson on a Contact Switch for Ball Rolling Games on March 1, 1938.

II.

The court erred in not adopting and applying the doctrine of "file wrapper estoppel" in connection with the issue of infringement.

III.

The court erred in not finding non-infringement under the doctrine of "file wrapper estoppel."

56

IV.

The court erred in applying the "doctrine of equivalents" in finding and decreeing infringement of claim 4 of the Nelson patent No. 2,109,678.

V.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was not anticipated by the prior art device "Bolo" (Def. Exh. 2 and 35).

VI.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was not anticipated by the following prior art (Def. Exh. 26):

Patent No.	Date	Patentee
501,777	July 18, 1893	Fisher
1,057,879	Apr. 1, 1913	Quain
1,319,038	Oct. 21, 1919	Beeler
1,678,573	July 24, 1928	Nakashima
1,808,060	June 2, 1931	Neubeck
2,053,379	Sept. 8, 1936	Shyvers, et al
2,118,037	May 24, 1938	Fischer

French Pat. No. 541,079 July 22, 1922 to Dabos.

Billboard publication, page 84, July 18, 1936 (Def. Exh. 3).

VII.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was not invalid for lack of invention over the following prior art disclosures: (Def. Exh. 26)

Patent No.	Date	Patentee
501,777	July 18, 1893	Fisher
1,057,879	Apr. 1, 1913	Quain
1,319,038	Oct. 21, 1919	Beeler
1,678,573	July 24, 1928	Nakashima
1,808,060	June 2, 1931	Neubeck
2,053,379	Sept. 8, 1936	Shyvers, et al
2,118,037	May 24, 1938	Fischer

French Pat. No. 541,079 July 22, 1922 to Dabos.

D-94,290 Jan. 8, 1935 Tratsch

D-94,291 Jan. 8, 1935 Tratsch

D-94,714 Feb. 26, 1935 Tratsch

2,037,108 Apr. 14, 1936 Bechtol

2,042,786 June 2, 1936 Hooker

Billboard publication, page 84, July 18, 1936 (Def. Exh. 3).

VIII.

The court erred in not finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was anticipated by or invalid for lack of invention over the prior art patent to Fisher, No. 501,777, dated July 18, 1893.

58

IX.

The court erred in not finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was anticipated by or invalid for lack of invention over the prior art patent to Dabos, French Pat. No. 541,079, dated July 22, 1922.

X.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was not invalid for lack of invention over the disclosure in the Mabs application, Serial No. 15,521 (Def. Exh. 37).

XI.

The court erred in not finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, granted March 1, 1938, defined a mere aggregation of elements all old in the art and therefore, by reason thereof, the said claim 4 was not patentable within the meaning of the Patent Statutes of the United States.

Wherefore defendant prays that the decree entered herein on the 28th day of May, 1940, be reversed with directions that the bill of complaint be dismissed.

Geo. I. Haight,

George H. Simmons,

Clarence E. Threedy,

Attorneys for Defendant, The Exhibit Supply Company.

Chicago, Illinois, June 20, 1940.

Service of the above statement by defendant of points relied upon on appeal accepted and acknowledged this 29th day of June, 1940.

Russell, Murphy & Pearson,
Casper W. Ooms.

Filed
June 18,
1940.

51 And on, to wit, the 18th day of June, A. D. 1940, came the Defendant-Appellant by its attorneys and filed in the Clerk's office of said Court its certain Appeal Bond in words and figures following, to wit:

52 IN THE DISTRICT COURT OF THE UNITED STATES.
* * (Caption—16209) * *

APPEAL BOND.

Know all men by these presents that we The Continental Casualty Company and The Exhibit Supply Company, a corporation of the State of Illinois, as surety, are firmly held and bound unto the Ace Patents Corporation in the full and just sum of Ten Thousand Dollars (\$10,000.00) to be paid said Ace Patents Corporation, their legal representatives, successors, and assigns, to which payment well and truly to be made we bind ourselves, our heirs, executors, administrators and assigns jointly and severally firmly by these presents. Sealed with our seals and dated this 17th day of June, in the year of Our Lord, one thousand nine hundred and forty.

53 Whereas, lately at a session of the District Court of the United States for the Northern District of Illinois, Eastern Division in a case entitled Ace Patents Corporation *vs.* The Exhibit Supply Company, Civil Action No. 16,209, a decree was entered against said defendant and the said defendant The Exhibit Supply Company has on date hereof filed its notice of appeal in the United States Circuit Court of Appeals for the Seventh Circuit to reverse a decree entered on the 28th day of May, 1940 in said suit.

Now condition of the above obligation is such that if said The Exhibit Supply Company prosecutes its appeal to effect and shall pay all costs which may be awarded to Ace Patents Corporation by reason of the proceedings in the Court of Appeals and all damages or other award that may be given to the Ace Patents Corporation for acts

occurring within the period of the stay provided for in the said Order of June 17, 1940 then the above obligation shall be found void; otherwise to remain in full force and effect.

The Exhibit Supply Company,
by J. Frank Meyer,
President.

(Seal)

Attest:

Cornelius R. Palmer,
Secretary.

Continental Casualty Company,
by R. L. McNamara,
Its Attorney-in-fact.

(Seal)

Approved as to form.
Casper W. Ooms,
Counsel for Plaintiff.

Approved as of June 18, 1940.
Barnes,
United States District Judge.

(Power of Attorney and Jurat attached—not copied.)

562 And afterwards, to wit, on the 17th day of June, A. D. 1940, being one of the days of the regular June term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

Entered
June 17,
1940.

563

IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation, a corporation,

*Plaintiff,**vs.*

Genco, Inc., a corporation,

Defendant.

Equity No. 16,210.
United States Letters
Patent No. 2,109,678.

SUPERSEDEAS ORDER.

Now comes the defendant named in the above entitled cause by its attorney, Clarence E. Threedy, and prays for a supersedeas order as to all proceedings in this cause including injunction, accounting and costs during the pendency of an appeal to the United States Circuit Court of Appeals for the Seventh Circuit from the decree heretofore entered in this cause;

Whereupon, it is ordered that upon the filing of a bond in the penal sum of Ten Thousand Dollars with surety to be approved by the court, the said appeal shall operate as a supersedeas and all further proceedings in said cause, including the effect of the injunction, accounting and collection of costs shall be stayed during the pendency of said appeal.

Barnes,

United States District Judge.

Entered this 17th day of June, 1940.

99 And on, to wit, the 18th day of June, A. D. 1940 came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Notice of Appeal in words and figures following, to wit:

100 IN THE DISTRICT COURT OF THE UNITED STATES
For the Northern District of Illinois,
Eastern Division.

Filed
June 18,
1940.

Ace Patents Corporation, a corporation,
Plaintiff,
vs.
Genco, Inc., a corporation,
Defendant. } Equity No. 16,210

NOTICE OF APPEAL.

To: Hon. Hoyt King, Clerk
United States District Court
U. S. Court House
Chicago, Illinois.
Russell, Murphy & Pearson,
135 South La Salle Street,
Chicago, Illinois.
Casper W. Ooms,
209 South La Salle Street,
Chicago, Illinois,
Attorneys for Plaintiff.

Please Take Notice that defendant, Genco, Inc. a corporation appeals to the United States Circuit Court of Appeals for the Seventh Circuit from the decree entered herein on the 28th day of May, 1940, finding claim 4 of the Nelson patent No. 2,109,678 in suit valid and infringed and granting a permanent injunction and awarding an accounting for damages, profits and costs against defendant.

Clarence E. Threedy,
Counsel for Defendant,
111 W. Washington Street,
Chicago, Illinois.

Chicago, Illinois,
June 18, 1940.

Filed
July 1,
1940.

104 And on, to wit, the 1st day of July, A. D. 1940 came the Defendant-Appellant by its attorneys and filed in the Clerk's office of said court its certain Statement of Points in words and figures following; to wit:

105 IN THE DISTRICT COURT OF THE UNITED STATES.

* * (Caption—16,210) * *

**STATEMENT BY DEFENDANT OF THE POINTS
ON WHICH IT INTENDS TO RELY ON APPEAL
UNDER RULE 75, SUBDIVISION D OF THE FED-
ERAL RULES OF CIVIL PROCEDURE.**

I.

The court erred in finding and decreeing that the devices of Genco, Inc. (Pltf. Exh. 10) infringed claim 4 of United States Letters Patent No. 2,109,678, granted to Nels A. Nelson on a Contact Switch for Ball Rolling Games on March 1, 1938.

II.

The court erred in not adopting and applying the doctrine of "file wrapper estoppel" in connection with the issue of infringement.

III.

The court erred in not finding non-infringement under the doctrine of "file wrapper estoppel."

106

IV.

The court erred in applying the "doctrine of equivalents" in finding and decreeing infringement of claim 4 of the Nelson patent No. 2,109,678.

V.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was not anticipated by the prior art device "Bolo" (Def. Exh. 2 and 35).

VI.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was not anticipated by the following prior art (Def. Exh. 26):

Patent No.	Date	Patentee
501,777	July 18, 1893	Fisher
1,057,879	Apr. 1, 1913	Quain
1,319,038	Oct. 21, 1919	Beeler
1,678,573	July 24, 1928	Nakashima
1,808,060	June 2, 1931	Neubeck
2,053,379	Sept. 8, 1936	Shyvers et al.
2,118,037	May 24, 1938	Fischer

French Pat. No. 541,079 July 22, 1922 to Dabos

Billboard publication, page 84, July 18, 1936 (Def. Exh. 3).

107

VII.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was not invalid for lack of invention over the following prior art disclosures (Def. Exh. 26):

Patent No.	Date	Patentee
501,777	July 18, 1893	Fisher
1,057,879	Apr. 1, 1913	Quain
1,319,038	Oct. 21, 1919	Beeler
1,678,573	July 24, 1928	Nakashima
1,808,060	June 2, 1931	Neubeck
2,053,379	Sept. 8, 1936	Shyvers et al.
2,118,037	May 24, 1938	Fischer

French Pat. No. 541,079 July 22, 1922 to Dabos

D-94,290 Jan. 8, 1935 Tratsch

D-94,291 Jan. 8, 1935 Tratsch

D-94,714 Feb. 26, 1935 Tratsch

2,037,108 Apr. 14, 1936 Bechtol

2,042,786 June 2, 1936 Hooker

Billboard publication, page 84, July 18, 1936 (Def. Exh. 3).

VIII.

The court erred in not finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was anticipated by or invalid for lack of invention over the prior art patent to Fisher, No. 501,777, dated July 18, 1893.

108

IX.

The court erred in not finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was anticipated by or invalid for lack of invention over the prior art patent to Dabos, French Pat. No. 541,079, dated July 22, 1922.

X.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was not invalid for lack of invention over the disclosure in the Mabs application, Serial No. 15,521 (Def. Exh. 37).

XI.

The court erred in not finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, granted March 1, 1938, defined a mere aggregation of elements all old in the art and therefore, by reason thereof, the said claim 4 was not patentable within the meaning of the Patent Statutes of the United States.

Wherefore defendant prays that the decree entered herein on the 28th day of May, 1940, be reversed with directions that the bill of complaint be dismissed.

Geo. I. Haight,
Clarence E. Threedy,
Attorney for Defendant,
Genco, Inc.

Chicago, Illinois, June 20, 1940.

Service of the above statement by defendant of points relied upon on appeal accepted and acknowledged this 29th day of June, 1940.

Russell, Murphy & Pearson,
Casper W. Ooms,
Attorneys for Plaintiff.

101 And on, to wit, the 18th day of June, A. D. 1940, came the Defendant-Appellant by its attorneys and filed in the Clerk's office of said Court its certain Appeal Bond in words and figures following, to wit:

Filed
June 18
1940.

102 IN THE DISTRICT COURT OF THE UNITED STATES.
* * (Caption—16,210) * *

APPEAL BOND.

Know all men by these presents that we The Continental Casualty Company and Genco, Inc., a corporation of the State of Illinois, as surety, are firmly held and bound unto the Ace Patents Corporation in the full and just sum of Ten Thousand Dollars (\$10,000.00) to be paid said Ace Patents Corporation, their legal representatives, successors, and assigns, to which payment well and truly to be made we bind ourselves, our heirs, executors, administrators and assigns jointly and severally firmly by these presents.

Sealed with our seals and dated this 17th day of June, in the year of Our Lord, one thousand nine hundred and forty.

103 Whereas, lately at a session of the District Court of the United States for the Northern District of Illinois, Eastern Division in a case entitled Ace Patents Corporation, *vs.* Genco, Inc., Civil Action No. 16,210, a decree was entered against said defendant and the said defendant, Genco, Inc., has on date hereof filed its notice of appeal in the United States Circuit Court of Appeals for the Seventh Circuit to reverse a decree entered on the 28th day of May, 1940, in said suit.

Now condition of the above obligation is such that if said Genco, Inc. prosecutes its appeal to effect and shall pay all costs which may be awarded to Ace Patents Corporation by reason of the proceedings in the Court of Appeals and all damages or other award that may be given to the Ace Patents Corporation for acts occurring within the period of the stay provided for in the said Order of

2

June 17, 1940 then the above obligation shall be found void; otherwise to remain in full force and effect.

Genco, Inc.,

By Louis W. Gensburg,

President.

(Seal)

Attest:

Myer Gensburg,

Secretary.

Continental Casualty Company,

By R. L. McNamara,

Its Attorney-in-fact.

(Seal)

Approved as to form.

Casper W. Ooms,

Counsel for Plaintiff.

Approved as of June 18, 1940.

Barnes,

United States District Judge.

564 And afterwards, to wit, on the 17th day of June, A. D. 1940, being one of the days of the regular June term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable John P. Barnes, District Judge, appears the following entry, to wit:

565 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation,
a corporation,

Plaintiff,

vs.

Chicago Coin Machine Co.,
a corporation,

Defendant.

Equity No. 16,212.
United States
Letters Patent
No. 2,109,678.

SUPERSEDEAS ORDER.

Now comes the defendant named in the above entitled cause by its attorney, Clarence E. Threedy, and prays for a supersedeas order as to all proceedings in this cause including injunction, accounting and costs during the pendency of an appeal to the United States Circuit Court of Appeals for the Seventh Circuit from the decree heretofore entered in this cause;

Whereupon, it is ordered that upon the filing of a bond in the penal sum of Ten Thousand Dollars with surety to be approved by the court, the said appeal shall operate as a supersedeas and all further proceedings in said cause, including the effect of the injunction, accounting and collection of costs shall be stayed during the pendency of said appeal.

Barnes,

United States District Judge.

Entered this 17th day of June, 1940.

Filed
June 18,
1940.

150 And on, to wit, the 18th day of June, A. D. 1940, came the Defendant by its attorneys and filed in the Clerk's office of said Court its certain Notice of Appeal in words and figures following, to wit:

151 IN THE DISTRICT COURT OF THE UNITED STATES

For the Northern District of Illinois,

Eastern Division.

Ace Patents Corporation, [

a corporation,

Plaintiff,

vs.

Chicago Coin Machine Co., [

a corporation,

Defendant.]

} Equity No. 16,212.

NOTICE OF APPEAL.

To: Hon. Hoyt King, Clerk,
United States District Court,
U. S. Court House,
Chicago, Illinois.
Russell, Murphy & Pearson,
135 South La Salle Street,
Chicago, Illinois.
Casper W. Ooms,
209 South La Salle Street,
Chicago, Illinois.

Attorneys for plaintiff.

Please Take Notice that defendant, Chicago Coin Machine Co., a corporation appeals to the United States Circuit Court of Appeals for the Seventh Circuit from the decree entered herein on the 28th day of May, 1940, finding claim 4 of the Nelson patent No. 2,109,678 in suit valid and infringed and granting a permanent injunction and awarding an accounting for damages, profits and costs against defendant.

Clarence E. Threedy,
Counsel for Defendant,
111 W. Washington Street.

Chicago, Illinois,
June 18, 1940.

155 And on, to wit, the 1st day of July, A. D. 1940 came the Defendant-Appellant by its attorneys and filed in the Clerk's office of said Court its certain Statement of Points in words and figures following, to wit: Filed
July 1,
1940.

156 IN THE DISTRICT COURT OF THE UNITED STATES.

* * * (Caption—16,212) * * *

STATEMENT BY DEFENDANT OF THE POINTS ON WHICH IT INTENDS TO RELY ON APPEAL UNDER RULE 75, SUBDIVISION D OF THE FEDERAL RULES OF CIVIL PROCEDURE.

I.

The court erred in finding and decreeing that the devices of Chicago Coin Machine Co. (Pltf. Exh. 5 and 6) infringed claim 4 of United States Letters Patent No. 2,109,678 granted to Nels A. Nelson on a Contact Switch for Ball Rolling Games on March 1, 1938.

II.

The court erred in not adopting and applying the doctrine of "file wrapper estoppel" in connection with the issue of infringement.

III.

The court erred in not finding non-infringement under the doctrine of "file wrapper estoppel."

157

IV.

The court erred in applying the "doctrine of equivalents" in finding and decreeing infringement of claim 4 of the Nelson patent No. 2,109,678.

V.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2, 109,678, dated March 1, 1938, was not anticipated by the prior art device "Bolo" (Def. Exh. 2 and 35).

VI.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2, 109,678, dated March 1, 1938, was not anticipated by the following prior art (Def. Exh. 26):

Patent No.	Date	Patentee
501,777	July 18, 1893	Fisher
1,057,879	Apr. 1, 1913	Quain
1,319,038	Oct. 21, 1919	Beeler
1,678,573	July 24, 1928	Nakashima
1,808,060	June 2, 1931	Neubeck
2,053,379	Sept. 8, 1936	Shyvers et al.
2,118,037	May 24, 1938	Fischer
French Pat. No. 541,079 July 22, 1922 to Dabos.		

Billboard publication, page 84, July 18, 1936 (Def. Exh. 3).

158.

VII.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was not invalid for lack of invention over the following prior art disclosures. (Def. Exh. 26.)

Patent No.	Date	Patentee
501,777	July 18, 1893	Fisher
1,057,879	Apr. 1, 1913	Quain
1,319,038	Oct. 21, 1919	Beeler
1,678,573	July 24, 1928	Nakashima
1,808,060	June 2, 1931	Neubeck
2,053,379	Sept. 8, 1936	Shyvers et al.
2,118,037	May 24, 1938	Fischer

French Pat. No. 541,079 July 22, 1922 to Dabos.

D-94,290	Jan. 8, 1935	Tratsch
D-94,291	Jan. 8, 1935	Tratsch
D-94,714	Feb. 26, 1935	Tratsch
2,037,108	Apr. 14, 1936	Bechtol
2,042,786	June 2, 1936	Hooker

Billboard publication, page 84, July 18, 1936 (Def. Exh. 3).

VIII.

The court erred in not finding and decreeing that claim 4 of the Nelson Patent No. 2,109,678, dated March 1, 1938, was anticipated by or invalid for lack of invention over the prior art patent to Fisher, No. 501,777, dated July 18, 1893.

159

IX.

The court erred in not finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was anticipated by or invalid for lack of invention over the prior art patent to Dabos, French Pat. No. 541,079, dated July 22, 1922.

X.

The court erred in finding and decreeing that claim 4 of the Nelson patent No. 2,109,678, dated March 1, 1938, was not invalid for lack of invention over the disclosure in the Mabs application, Serial No. 15,521 (Def. Exh. 37).

XI.

The court erred in not finding and decreeing that claim 4 of the Nelson patent No. 2,109,678; granted March 1, 1938, defined a mere aggregation of elements all old in the art and therefore, by reason thereof, the said claim 4 was not patentable within the meaning of the Patent Statutes of the United States.

Wherefore defendant prays that the decree entered herein on the 28th day of May, 1940, be reversed with directions that the bill of complaint be dismissed.

Geo. I. Haight,

Clarence E. Threedy,

*Attorney for Defendant,
Chicago Coin Machine Co.*

Chicago, Illinois,
June 20, 1940.

Service of the above Statement by defendant of points relied upon on appeal accepted and acknowledged this 29th day of June, 1940.

Russell, Murphy & Pearson;
Casper W. Ooms,
Attorneys for Plaintiff.

Filed
June 18,
1940.

152 And on, to wit, the 18th day of June, A. D., 1940, came the Defendant-Appellant by its attorneys and filed in the Clerk's office of said Court its certain Appeal Bond in words and figures following, to wit:

153 IN THE DISTRICT COURT OF THE UNITED STATES.
* * * (Caption—16,212) * *

APPEAL BOND.

Know all men by these presents that we The Continental Casualty Company and Chicago Coin Machine Co., a corporation of the State of Illinois, as surety, are firmly held and bound unto the Ace Patents Corporation in the full and just sum of Ten Thousand Dollars (\$10,000.00) to be paid said Ace Patents Corporation, their legal representatives, successors, and assigns, to which payment well and truly to be made we bind ourselves, our heirs, executors, administrators and assigns jointly and severally firmly by these presents. Sealed with our seals and dated this 17th day of June, in the year of Our Lord, one thousand nine hundred and forty.

154 Whereas, lately at a session of the District Court of the United States for the Northern District of Illinois, Eastern Division in a case entitled Ace Patents Corporation vs. Chicago Coin Machine Co., Civil Action No. 16,212, a decree was entered against said defendant and the said defendant, Chicago Coin Machine Co. has on date hereof filed its notice of appeal in the United States Circuit Court of Appeals for the Seventh Circuit to reverse a decree entered on the 28th day of May, 1940 in said suit.

Now condition of the above obligation is such that if said Chicago Coin Machine Co. prosecutes its appeal to effect and shall pay all costs which may be awarded to Ace Patents Corporation by reason of the Proceedings in the Court of Appeals and all damages or other award that

may be given to the Ace Patents Corporation for acts occurring within the period of the stay provided for in the said Order of June 17, 1940 then the above obligation shall be found void; otherwise to remain in full force and effect..

Chicago Coin Machine Co.,
By Samuel Walberg,
President.

Attest:

Samuel H. Gensburg,
Secretary.

Continental Casualty Company,
By R. L. McNamara,
Its Attorney-in-fact.

Approved as to form
Casper W. Ooms,
Counsel for Plaintiff.

Approved as of June 18, 1940.

Barnes,
United States District Judge.

(Power of Attorney and Jurat attached—not copied.)

486 And on, to wit, the 1st day of July, A. D. 1940 came the Defendants-Appellants by their attorneys and filed in the Clerk's office of said Court their certain designation of Contents of Record on Appeal in words and figures following, to wit:

Filed 487 IN THE DISTRICT COURT OF THE UNITED STATES
 ly 1.
 1940.
 For the Northern District of Illinois,
 Eastern Division.

Ace Patents Corporation, a corporation,	} Plaintiff,	Equity No. 16,209
<i>vs.</i>		
The Exhibit Supply Company, a corporation,	} Defendant.	

Ace Patents Corporation, a corporation,	} Plaintiff,	Equity No. 16,210
<i>vs.</i>		
Genco, Inc., a corporation,	} Defendant.	

Ace Patents Corporation, a corporation,	} Plaintiff,	Equity No. 16,212
<i>vs.</i>		
Chicago Coin Machine Co., a corporation,	} Defendant.	

DEFENDANT'S DESIGNATION OF CONTENTS OF
 RECORD ON APPEAL.

488 Equity No. 16,209

1. Bill of Complaint.
2. Defendant's answer to Bill of Complaint.
3. Amendment to Defendant's answer to Bill of Complaint and Order allowing the same.
4. Notice under R. S. 4920.
5. Interrogatories dated January 29, 1940, addressed to Plaintiff under Rule 33, Rules of Civil Procedure.
6. Answer to Interrogatories of January 29, 1940.
7. Interrogatories dated April 19, 1940 addressed to Plaintiff under Rule 33 of the Rules of Civil Procedure.

8. Answer to Interrogatories of April 19, 1940.
9. Finding of Facts and Conclusions of Law.
10. Decree.
11. Notice of Appeal.
12. Appeal Bond.
13. Appellant's statement of points on which it intends to rely on appeal.

Equity No. 16,210.

1. Bill of Complaint.
2. Defendant's answer to Bill of Complaint.
3. Amendment to Defendant's answer to Bill of Complaint and Order allowing the same.
4. Notice under R. S. 4920.
5. Interrogatories dated January 29, 1940 addressed to Plaintiff under Rule 33, Rules of Civil Procedure.
6. Answer to Interrogatories of January 29, 1940.
7. Finding of Facts and Conclusions of Law.
8. Decree.
9. Notice of Appeal.
10. Appeal Bond.
11. Appellant's statement of points on which it intends to rely on appeal.

Equity No. 16,212

1. Bill of complaint.
2. Defendant's answer to Bill of Complaint.
3. Amendment to Defendant's answer to Bill of Complaint and Order allowing the same.
4. Notice under R. S. 4920.
5. Interrogatories dated January 29, 1940 addressed to Plaintiff under Rule 33, Rules of Civil Procedure.
6. Answer to Interrogatories of January 29, 1940.
7. Finding of Facts and Conclusions of Law.
8. Decree.
9. Notice of Appeal.
10. Appeal Bond.
11. Appellant's statement of points on which it intends to reply on appeal.

Equity Nos. 16,209; 16,210 and 16,212.

1. Transcription of testimony at the trial (from line 14, page '33 to line 10, page 117 inclusive; and from line 2, page 119 to page 213 inclusive) comprising the testimony of the witnesses; Nels A. Nelson, Lyle F. Campbell, George D. Moloney, Leslie M. Hansen, Harry J. Mabs, Jerry C. Koci and Paul O. Pippel.

(Pencil notation—(See Addl. Designation of Pltf.—#1).)

2. Decision.

3. This designation of record on appeal.

3a. Argument of counsel as follows: Mr. Ooms, p. 242 of the transcript to last paragraph on p. 254; Mr. Threedy, p. 273 of the transcript to and including p. 303; Mr. Ooms, p. 304.

(Pencil notation—(See above).)

490 4. Plaintiff's Paper Exhibits to be printed:

Exh. 1—Patent in Suit No. 2,109,678 to Nelson.

Exh. 2-E—Stipulation by Ace Patents Corporation and Exhibit Supply Company.

Exh. 2-C—Stipulation by Ace Patents Corporation and Chicago Coin Machine Co.

Exh. 2-G—Stipulation by Ace Patents Corporation and Genco, Inc.

Exh. 3-E—Notice of Infringement to Exhibit Supply Co.

Exh. 3-C—Notice of Infringement to Chicago Coin Machine Co.

Exh. 3-G—Notice of Infringement to Genco, Inc.

Exh. 15—Report of Production and Release on Bumper (Dec. 1936 to Apr. 1940).

Exh. 16—Graph of Production and Sales (Oct. 1936 to Apr. 1937).

Exh. 17—Billboard of Dec. 19, 1936, p. 90.

Exh. 18—Billboard of Jan. 16, 1937, p. 116 (Chicago Coin ad).

Exh. 19—Billboard of Jan. 23, 1937, p. 96 (Pamco "Hi de Ho")

Exh. 20—Billboard of Jan. 23, 1937, p. 86 (Chicago Coin ad).

Exh. 21—Billboard of Feb. 6, 1937, p. 98.

Exh. 22—Billboard of Feb. 20, 1937, p. 87 (Keeney ad).

Exh. 23—Billboard of Feb. 27, 1937, p. 93 (Chicago Coin ad).

Exh. 24—Billboard of Mar. 20, 1937, p. 86 (Chicago Coin "Home Run").

Exh. 25—Billboard of Mar. 20, 1937, p. 93 (Genco "Wizard").

Exh. 26—Billboard of Mar. 20, 1937, p. 98 (Bally "Booster").

491 5. Plaintiff's Physical Exhibits:

Exh. 5—Model of Chicago Coin Structure (Def. C¹).

Exh. 6—Model of Chicago Coin Structure (Def. C²).

Exh. 7—Model of Exhibit Supply Structure (Def. E¹).

Exh. 8—Model of Exhibit Supply Structure (Def. E²).

Exh. 9—Model of Exhibit Supply Structure (Def. E³).

Exh. 10—Model of Genco, Inc. Structure (Def. G¹).

Exh. 11—Model of the Nelson Patent.

Exh. 12—Model of a Ball Switch Beneath a Hole.

Exh. 13—Model of a Roll-over Switch on a Board.

Exh. 27—Trophy.

Exh. 28—Ball Game "Bumper".

6. Defendants' Paper Exhibits to be Printed:

Exh. 3—Magazine "Billboard" of July 18, 1936, p. 84.

Exh. 25—File wrapper of Nelson Patent in Suit.

Exh. 26—Book of Prior Art and Patents Showing the State of the Art.

Exh. 27—Page 67 of Billboard, July 11, 1936.

Exh. 28—Page 97 of Billboard, July 25, 1936.

Exh. 30—Drawing illustrating Fisher Pat. 501,777.

Exh. 33—Drawing illustrating French Pat. 541,079 to Dabos.

Exh. 35—Drawing of "Bolo" pin (Def. Exh. 4).

Exh. 36—Chart of Claims.

Exh. 37—File Wrapper of Mabs et al. application filed April 10, 1935; print only the following: Drawings illustrating Figs. 1 to 4 inclusive; and 12 to 19 inclusive and that part of the specification beginning line 18, page 6 and ending line 8, page 7.

Exh. 38a and 38b—Mabs Photographs.

492 7. Defendants' Physical Exhibits.

Exh. 2. Game Apparatus "Bolo".

Exh. 4. Bumper on Top of Board (Bolo Bumper).

Exh. 31. Model #1 of Fisher Pat. 501,777.

Exh. 32. Model #2 of Fisher Pat. 501,777.

Exh. 34. Model of French Pat. 541,079 to Dabos.

Exh. 40. Spring Bumper (illustrated in Fischer Patent No. 2,118,037.)

Additional Designation.

Exh. 27. File wrapper of Mabs *et al* application filed April 10, 1935.

George I. Haight,
Geo. H. Simmons,
Clarence E. Threedy,
Attorneys for Exhibit Supply Co.
Clarence E. Threedy,
*Attorney for Genco, Inc. and Chi-
cago Coin Machine Co.*

Service of the above designation of contents of record on appeal accepted and acknowledged this 29th day of June, 1940.

Russell, Murphy & Pearson,
Casper W. Ooms,
Attorneys for Plaintiff.

Filed
July 8,
1940.

550 And on, to wit, the 8th day of July, A. D. 1940 came the Plaintiffs by their attorneys and filed in the Clerk's office of said Court their certain Designation of Additional Portions of the Record, Proceedings, and Evidence to be included in the Record on Appeal in words and figures following, to wit:

551 IN THE DISTRICT COURT OF THE UNITED STATES.

* * (Caption—16,209—16,210—16,212) * *

PLAINTIFF'S DESIGNATION OF ADDITIONAL PORTIONS OF THE RECORD, PROCEEDINGS, AND EVIDENCE TO BE INCLUDED IN THE RECORD ON APPEAL.

552 1. Transcript of testimony, line 10, page 117 to line .2, page 119, inclusive; page 214 to page 241, inclusive, last paragraph, page 254 to 272, inclusive.

(Note: For clarity, Plaintiff notes that the designations of the parties now include all of the transcript of testimony and argument of counsel except the portion extending from page 1 to line 14 of page 33, inclusive.)

(See Deft's Designation) (all there).

2. Plaintiff's Paper Exhibits to be Printed.

Exh. 30, Certified copy of file wrapper and contents of Fitch application, filed October 7, 1939, Serial No. 298,347..

3. Plaintiff's Physical Exhibits.

Exh. 4, Pacent game apparatus "Stop 'Em."

Exh. 14, Phosphor bronze spring removed from "Stop 'Em" game apparatus, Plaintiff's Exhibit No. 4.

Exh. 29, Bally "Skyscraper" game apparatus.

4. Defendants' Paper Exhibits to be Printed.

Exh. 5, Sketch of spring around pin.

Exh. 6, Sketch of spring around pin.

Exh. 15, Voucher of Pacent Novelty Mfg. Co.

Exh. 16, Letter of Recommendation of Fitch by Pacent Novelty Mfg. Co.

Exh. 17, Sketch, Fig. 1.

Exh. 18, Sketch, Fig. 2.

Exh. 19, Sketch, Fig. 3.

Exh. 20, Voucher of Pacent Novelty Mfg. Co.

Exh. 21, Voucher of Pacent Novelty Mfg. Co.

Exh. 22, Sketch by Kay and Wilder, dated August 14, 1936.

Exh. 23, Sketch by Wilder, dated Dec. 11, 1936.

Exh. 24, Sketch by Wilder, dated August 13, 1936.

553 5. Depositions to be Printed.

Depositions of John Grimm, Ellsworth M. Fitch, Martin B. Grimm, Thomas L. Wilder, and Sol M. Silverstein, composing pages 6 to 141, inclusive, of a volume entitled "Depositions of Witnesses".

6. Defendants' Physical Exhibits.

Exh. 7, Test Rack.

Exh. 8, Springs.

Exh. 9, Miniature Bowling Pin.

Exh. 10, Bumper Switch Model made by Counsel for Defendants.

Exh. 11, Bumper Switch Model made by Counsel for Defendants.

Exh. 12, Miniature Bowling Pin.

Exh. 13, Test Switch.

Exh. 14, Cloth Bag Containing Ball.

Exh. 29, Book of Drawings of Defendants' Devices (Same as Drawings accompanying Interrogatories).

Exh. 39, Drawing of Fig. 2 of Nelson Patent (do not print).

Joe A. Russell,

Casper W. Ooms,

Attorneys for Plaintiff.

July 8, 1940.

Service of the foregoing document accepted and acknowledged this 8 day of July, 1940.

Geo. I. Haight,
*Attorney for Defendant
Exhibit Supply Co.*

Geo. I. Haight,
*Attorney for Defendant
Genco, Inc.*

Geo. I. Haight,
*Attorney for Defendant
Chicago Coin Machine Co.*

Entered
July 3,
1940. 566 And afterwards, to wit, on the 3rd day of July, A. D. 1940, being one of the days of the regular July term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable William H. Holly, District Judge, appears the following entry, to wit:

567 IN THE DISTRICT COURT OF THE UNITED STATES.

* * (Caption—16,209—16,210—16,212) * *

ORDER.

Upon motion of the defendants in the above entitled causes, Be It And It Hereby Is Ordered that said causes be consolidated for the purposes of appeal.

Enter:

Holly,
Judge.

Chicago, Illinois, July 3, 1940.

568 And afterwards, to wit, on the 12th day of July, A. D. 1940, being one of the days of the regular July term of said Court, in the record of proceedings thereof, in said entitled cause, before the Honorable William H. Holly, District Judge, appears the following entry, to wit:

Entered
July 12,
1940.

569 IN THE DISTRICT COURT OF THE UNITED STATES.

* * (Captions—16,209—16,210—16,212) * *

ORDER.

Upon stipulation of counsel for the respective parties, the court being advised in the premises, Be It And It Is Hereby Ordered that the original exhibits of the parties in the above entitled cause may be sent to the Appellate Court in lieu of copies thereof.

Enter:

Holly,
Judge.

Dated: Chicago, Illinois, July 12, 1940

March 1, 1938.

N. A. NELSON

2,109,678

CONTACT SWITCH FOR BALL ROLLING GAMES

Filed Jan. 12, 1937

Fig. 1.

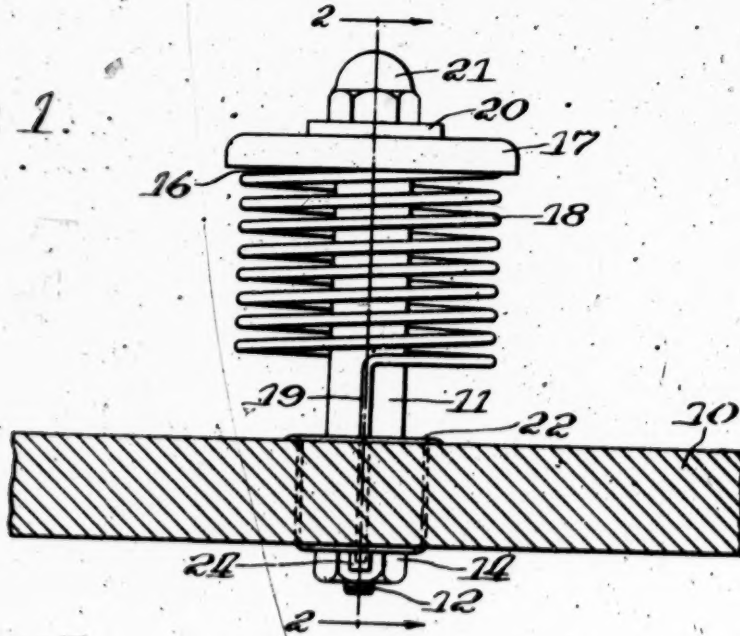
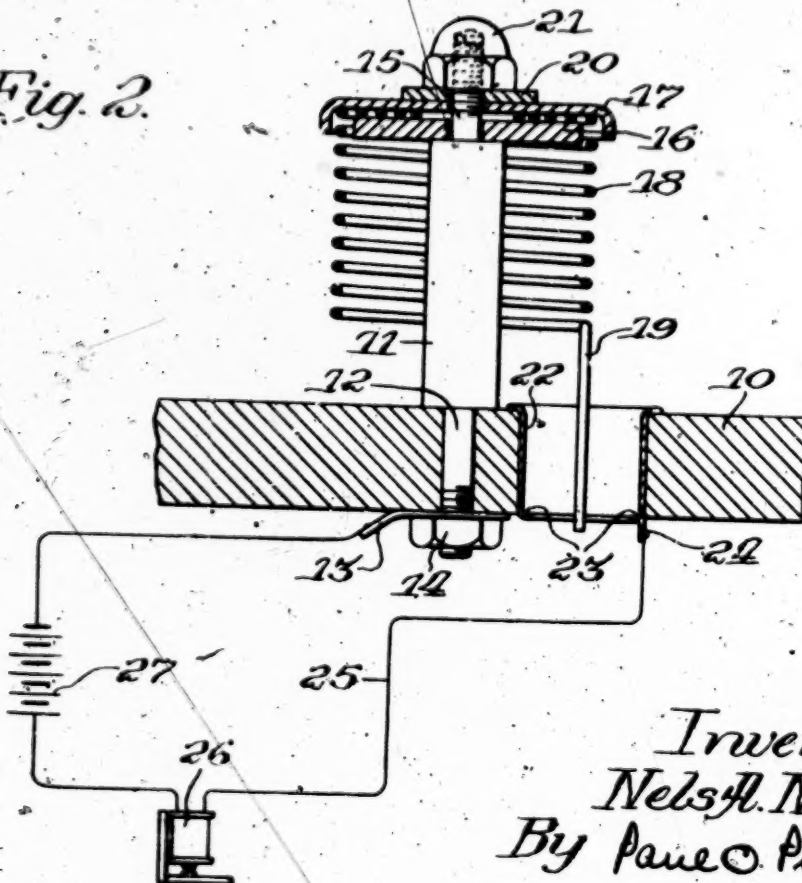


Fig. 2.



Inventor
Nels A. Nelson
By Paul O. Poppel
Att'y.

UNITED STATES PATENT OFFICE

2,109,678

CONTACT SWITCH FOR BALL ROLLING GAMES

Nels A. Nelson, Chicago, Ill., assignor to Raymond T. Meloney, Chicago, Ill.

Application January 12, 1937, Serial No. 120,256

5 Claims. (Cl. 200—52)

The invention relates to a contact switch for use in ball rolling games, or the like.

These games usually embody a table over which a ball is freely rollable to engage suitable targets disposed thereon, said targets in the present instance being in the form of a special means adapted to be bumped or contacted by the ball to cause momentary closing of a circuit with a suitable source of energy, said circuit including an electromagnetic relay to operate a score register, dispenser, or like game auxiliary.

More particularly, the invention relates to the target structure which in the present instance is in the form of a resilient circuit closer, so disposed on the game table as to be contacted by a freely rolling ball, or other playing piece, momentarily to close the associated circuit.

The main object of the invention is to provide a novel form of obstacle or target for use with ball rolling games.

Another object is to provide such obstacle in the form of a normally open resilient switch or circuit closer, which when bumped or contacted by a free rolling ball momentarily closes to establish an electric circuit.

Still another object is to provide such a contact switch in the form of a pendant coil spring carried above a game board, and including a leg movable, when the spring is bumped, to engage a ferrule, or the like, disposed in the board; both the spring and ferrule constituting electrical conductors disposed in a circuit.

Other important objects will become apparent to those skilled in this art as the disclosure is more fully made.

Briefly, these objects may be attained in a ball rolling amusement game having a table over which a ball or balls may be propelled, or otherwise rolled with the object of causing the ball to bump or contact the switch structure of this invention. Said switch comprises a conductor standard mounted in the table and carries a coil spring having a leg pendantly disposed in a conductor ring located in the table slightly offset from the standard. The standard and ring are wired in a circuit with a source of energy and a relay coil in such a manner that when a ball rolling on the table bumps the coil spring from any angular direction whatsoever, the leg of the spring will be caused momentarily to contact the conductor ring in the board to establish the circuit for operating the relay coil and any desired game auxiliary device.

In the sheet of drawings:

Figure 1 is a front elevational view of the

bumper obstacle mounted on a game board; and,

Figure 2 is a side sectional view thereof, taken along the line 2—2 of Figure 1, looking in the direction of the arrows; a wiring diagram being also shown in illustrative form.

The game board or table is shown at 10, the same being either disposed horizontally or slightly tilted from the horizontal in a manner well known in this art. A support or standard 11 is mounted in an upright position on the board, the same having a reduced threaded shank 12 passed through the board, or table 10, as shown, there being provided a metallic clip 13 and nut 14, below the table to secure the standard to the table, in an obvious manner.

The upper end of the standard also is reduced to form a threaded shank 15, the shoulder thus provided, carrying a horizontal washer 16. The shank above the washer 16 carries a cup-shaped cap 17 and between the cap and washer is the end of a coil spring 18, which at its lower end terminates in a pendant spring leg 19. The spring assembly is made secure by a lock washer 20 and nut 21, as shown.

Below the leg 19 and offset from the standard 11, the table 10 is formed with an aperture in which is securely seated a conductor ferrule 22 into which the leg 19 is suspended and normally out of contact therewith. Said ferrule at its lower end is formed with an intumed annular flange 23 and an integral depending extension 24.

The clip 13 and extension 24 are disposed, for example, in an electrical circuit 25 for an electromagnetic relay coil 26, and with a source of energy, such as the battery 27.

In use, when a ball rolling on the table 10 bumps or hits the spring 18 to rebound therefrom, the impact moves the spring sufficiently to cause the leg 19 thereof to contact the flange 23 of the ferrule, momentarily to close the circuit 25 and cause energization of the coil 26 for any desired purpose. It can be seen since the leg 19 is normally disposed at the center of the annular ferrule 22, that no matter from what angular direction a ball strikes the spring it will be operative to close the circuit in the manner described.

In a ball rolling game any desired number of such spring switch obstacles or targets may be placed on the board in any suitable spaced relationship and consequently, as in pin ball games generally, a single ball may successively bump and close a number of the switch devices.

It is the intention to cover all changes and modifications of the example of the invention

herein chosen for purposes of the disclosure, which do not constitute departures from the spirit and scope of the invention.

What is claimed is:

- 5 1. In a ball rolling game, a substantially horizontal table, the combination with said table of a substantially vertical support thereon carrying a coil spring coiled around the support and including a down-turned extension, said spring
10 constituting one conductor member of a switch disposed in an electric circuit, the other member of the switch comprising a conductor ferrule carried by and embedded in the table and adapted to be engaged by said extension which
15 depends into said ferrule, said members being normally gapped apart to hold the circuit open but adapted to close momentarily to establish the circuit when a ball rolling on the table bumps the spring.
- 20 2. In a ball rolling game, a substantially horizontal table, the combination with said table, of a substantially vertical standard thereon carrying a coil spring coiled around the standard and having a leg extending downwardly into an
25 opening formed in the board, said spring and support constituting one side of a circuit closer disposed in an electric circuit, the other side of the switch comprising a conductor disposed in said opening, said spring when bumped by a ball
30 rolling on the table being movable to engage the leg with the conductor in said opening momentarily to establish the circuit.
3. In a ball rolling game, a substantially horizontal table, the combination with said table,
35 of a substantially vertical standard thereon carrying a coil spring coiled around the standard and having a leg extending downwardly into an opening formed in the board, said spring constituting one side of a circuit closer disposed in
40 an electric circuit, the other side of the switch comprising a conductor ferrule carried by the table within said opening, said ferrule including an intumed annular flange, said spring when bumped by a ball rolling on the table being mov-

able to engage the leg with the flange momentarily to establish the circuit.

4. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by
10 a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the
20 spring when it is flexed to close the aforementioned circuit.

5. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil
30 spring surrounding the standard, means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when
40 bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and a conductor ferrule embedded in an opening formed in the table at a point spaced from the standard and engageable by a portion of the spring extended into said ferrule when the spring is flexed to cause closing of the aforementioned circuit.

NELSON A. NELSON.

551

(No Model.)

552

No. 501,777.

C. J. FISHER.
BURGLAR ALARM.

Patented July 18, 1893.

Fig. 1

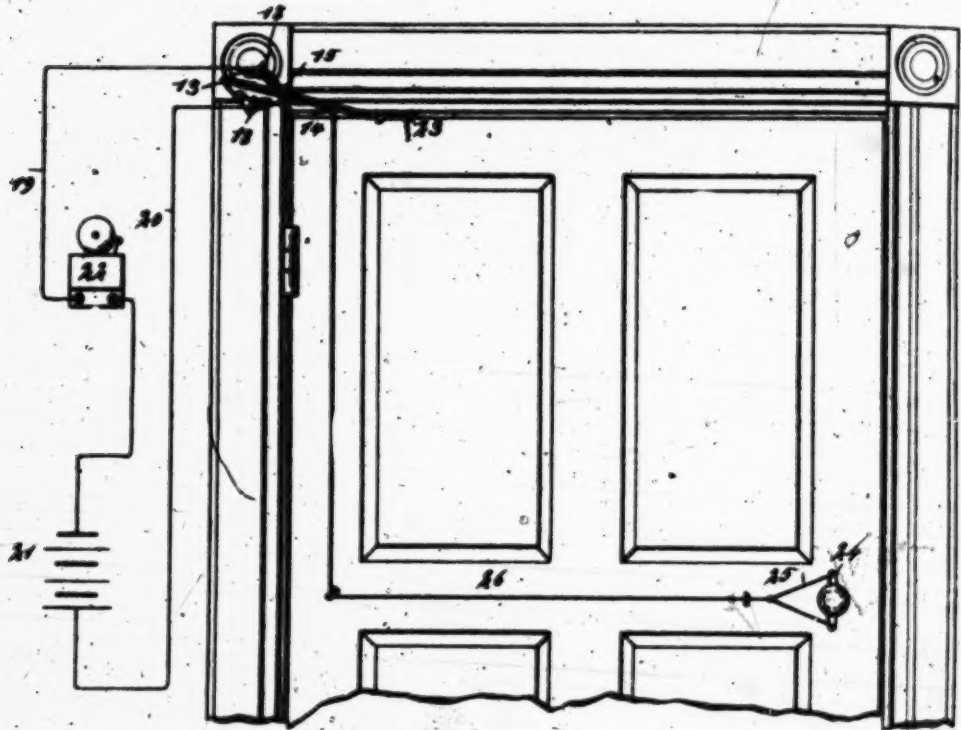


Fig. 2

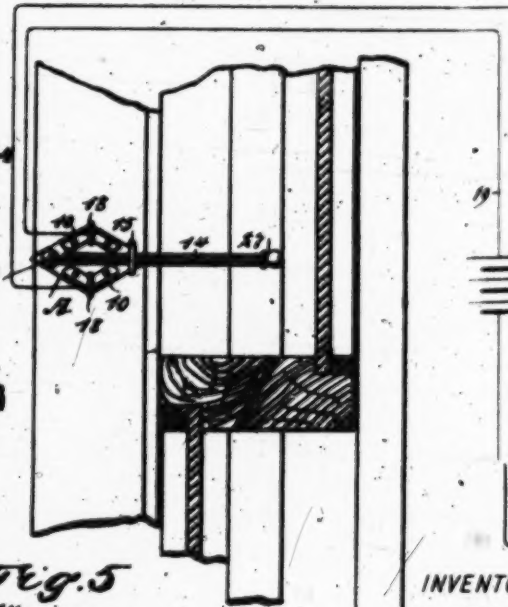


Fig. 3

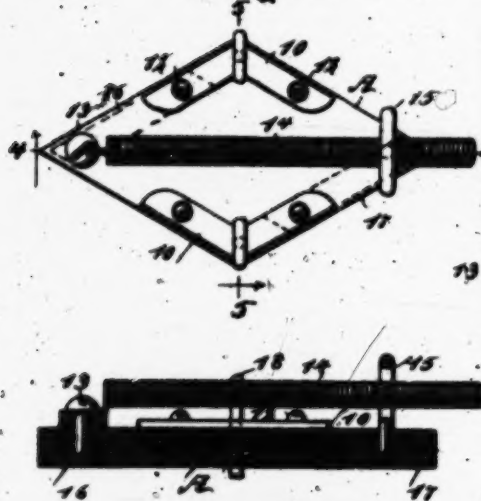


Fig. 4

WITNESSES:
J. A. Burgeton
J. A. Burgeton

Fig. 5



INVENTOR

C. J. Fisher

BY

Munn &

ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES J. FISHER, OF CHICAGO, ILLINOIS.

BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 501,777, dated July 18, 1893.

Application filed April 5, 1893. Serial No. 460,151. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. FISHER, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Burglar-Alarms, of which the following is a full, clear, and exact description:

My invention relates to an improvement in burglar alarms, and it has for its object to provide a device of an electric character, simple and durable in its construction and capable of being expeditiously and conveniently applied to a door, window, trunk, bureau drawer, or any article of furniture, the application being made in such manner that when the door is opened, or when the window is raised or lowered, or the trunk or the drawer opened, an alarm will be instantly sounded the moment that the position of the part to which the device is applied is moved even though but slightly beyond a predetermined position.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a door frame and door, illustrating the application of the device thereto. Fig. 2 is a vertical sectional view of a portion of a window frame and its sashes, illustrating the application of the invention to the sash. Fig. 3 is a plan view of the device. Fig. 4 is a vertical longitudinal section taken practically on the line 4—4 of Fig. 3; and Fig. 5 is a transverse section taken essentially on the line 5—5 of Fig. 3.

In carrying out the invention the device consists of a base plate A, which may be of any desired shape, but is preferably made somewhat diamond shape, as illustrated in the drawings. The base is made of an insulating material, as for instance hard rubber, and at opposite sides thereof metal plates 10 are located, the plates being preferably of copper or of a metal which is a good conductor of electricity. The plates 10, are oppositely

disposed and are located at the central angles of the plate.

The center of each plate 10, is provided with an opening 11, extending through it, which opening likewise is made to continue through the base, as shown in Fig. 5, and two metal screws, preferably made of brass and designated as 12, are passed through each end of each plate and through the base. These screws are adapted to be conductors of electricity, and a third screw 13, is located at one end of the base upon its upper face, the screw extending through to the under surface of the base. The screw 13, is connected with one end of a spring 14; this spring extends longitudinally over the base, and passes through a metal eye 15, the body of the eye being carried through to the bottom of the base. Normally this spring is adapted to pass through the eye in such manner as not to engage therewith.

Upon the under surface of the base two conducting plates 16 and 17, are located, the said plates being oppositely disposed, and the plate 16, is connected with one of the conducting screws 12 of one of the upper plates 10, and with the conducting screw 13 to which the spring 14, is attached, as shown in Figs. 3 and 4, while the opposite under contacting plate 17, is connected with the conducting screw of the second upper conducting plate and with the eye 15 through which the spring 14 passes.

When the base plate is secured upon any object, it is attached by passing screw eyes 18, or like fastening devices through the apertures 11 in the upper plates 10, the eyes engaging with said plates, and the positive and negative wires 19 and 20 of the battery 21, are connected with the two fastening eyes 18, as shown in Figs. 1 and 2, and in the circuit a bell 22, of any approved construction is located, adapted to be operated by the electric current when the circuit is closed. It will be observed that as long as the spring 14 remains in the middle of the eye 15 and out of engagement with said eye, the circuit will be open; but the moment that the spring 14, engages with the eye 15 it will close the circuit, as all of the plates, the spring and the wires of the battery are in connection, and at that

time only will an alarm be sounded by the bell 22.

In applying the device to a door, for example, the base is preferably secured to the door jamb, for instance, in one upper corner near the hinge stile of the door, and the spring is secured to a bracket 23, attached to the top of the door by a single screw loosely entered, so that the device will not interfere with opening the door fully. Thus, in the event the door is opened even to a slight degree, the spring will be forced to a contact with the guide eye 15, thus closing the circuit; and when an attachment is to be made with the knob of the door a cross bar 24, is secured to the knob spindle in any suitable or approved manner, as is best shown in Fig. 1. Cords 25, are led from the ends of this cross bar and are connected with another cord 26, which is passed through guides located upon the door and is secured to any portion of the spring 14 between the bracket 23 and the guide eye 15. Thus when the knob is turned in one direction tension will be exerted upon the cord 26 and the spring will be moved laterally in a vertical direction and will be brought to an engagement with the guide eye 15.

In Fig. 2 I have illustrated the application of the device to a window frame and its sashes, in which it will be observed that a plug 27, preferably of rubber, is inserted in the extreme outer end of the spring. The base plate is secured to the window frame, and the spring is made to extend horizontally in such direction that its soft rubber plug 27, will be in frictional contact with the inner face of the side rail of the upper sash, the spring being located but a slight distance above the upper rail of the lower sash. Thus it will be observed that if the upper sash is lowered even to a slight degree the spring will be carried downward with it and will be brought in engagement with the guide eye or whatever equivalent device is employed, and will cause an alarm to be sounded, while the same effect is obtained by raising the lower sash and bringing it in engagement with the spring.

The device is exceedingly simple, it may be readily transported from place to place, and

it is capable of being expeditiously applied to any article wherein it is desirable that an alarm should be sounded when the article is unduly tampered with.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. As an article of manufacture, a burglar alarm, the same consisting of a base plate of a non-conducting material, conducting plates adapted as conductors of electricity secured upon the upper face of the base plate, a second set of conducting plates upon the under face of the base, one in connection with each of the upper plates, a spring arm in electrical engagement with one of the lower plates, a guide device, through which the spring arm passes, in engagement with the second under plate, and binding posts connected with the upper plates, as and for the purpose specified.

2. As an article of manufacture, a burglar alarm, the same consisting of a base plate of a non-conducting material, conducting plates adapted as conductors of electricity secured upon the upper face of the base plate, a second set of conducting plates located upon the under face of the base, one in connection with each of the upper plates, a spring arm in electrical engagement with one of the lower plates, a guide device through which the spring arm passes in engagement with the second under plate, binding posts connected with the upper plates, and a knob of an elastic or yielding material located in the outer end of the spring arm, as and for the purpose specified.

3. As an improved article of manufacture, a burglar alarm, consisting of a base plate carrying the following elements:—conducting plates, connections for receiving the line wires, such connections being in contact with the conducting plates, a contact device for closing the circuit, such device consisting of an elongated spiral spring connected with one conducting plate, and a guide device through which the said spring passes, the guide device being in contact with the second conducting plate, substantially as described.

CHARLES J. FISHER.

Witnesses:

JOHN F. LEE,

FRANK A. FISHER.

555

556

J. R. QUAIN.
ALARM FOR PREVENTING THEFT.
APPLICATION FILED OCT. 4, 1912.

1,057,879.

Patented Apr. 1, 1913.
2 SHEETS-SHEET 1.

Fig. 1.

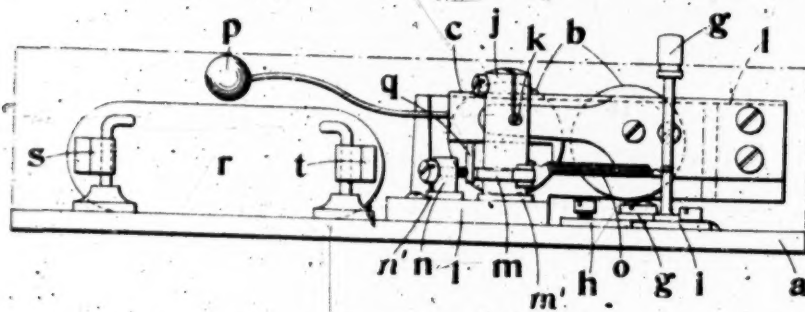
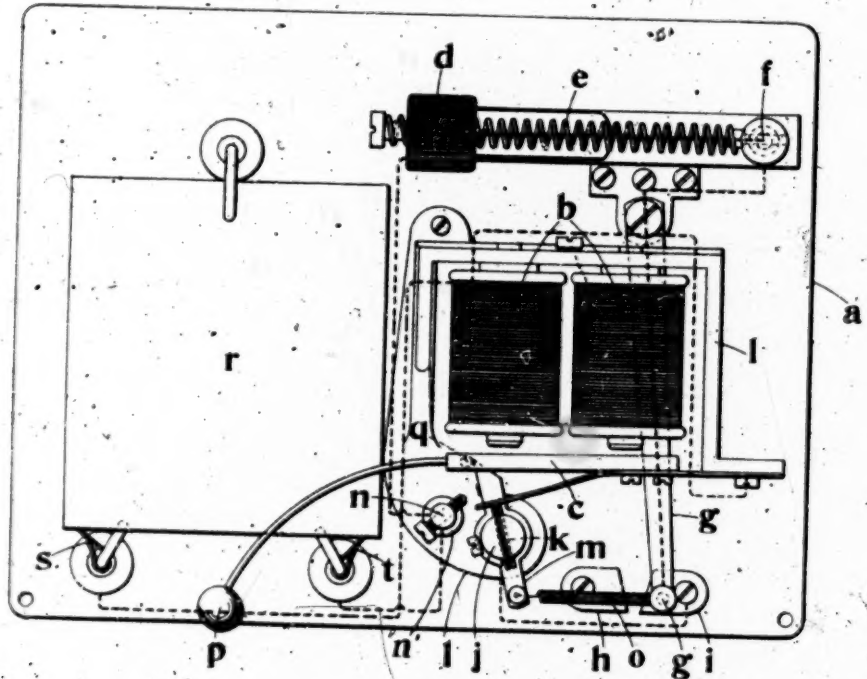


Fig. 2.

Witnesses—
Stanley Wood,
Robert C. Hughes.

Inventor
John Robert Quain
by
w. h. w.
Attorney.

557

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1,057,879.

J. R. QUAIN.
ALARM FOR PREVENTING THEFT.
APPLICATION FILED OCT. 4, 1913.

Patented Apr. 1, 1913.
3 SHEETS—SHEET 2.

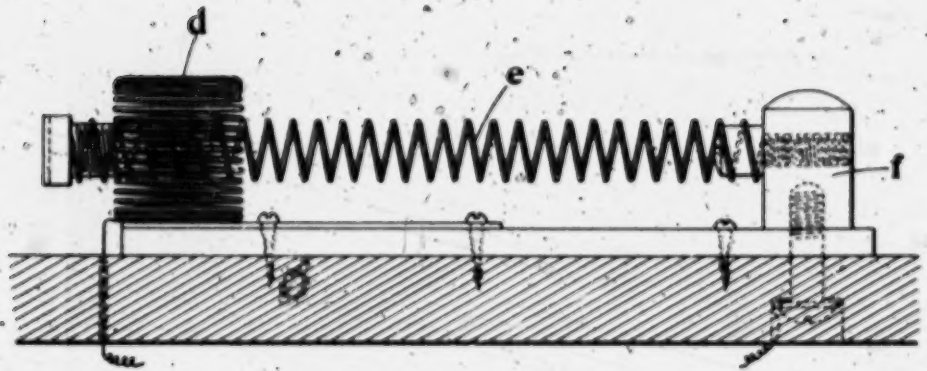


Fig. 3.

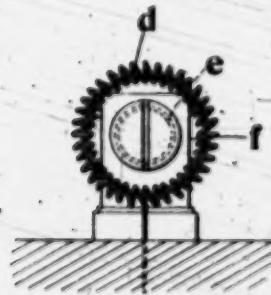


Fig. 4.

Witnesses—
Stanley Wood
H. B. Rende

Inventor
John Robert Quain
by
[Signature]
Attorney.

UNITED STATES PATENT OFFICE 559

JOHN ROBERT QUAIN, OF WESTMINSTER, LONDON, ENGLAND.

ALARM FOR PREVENTING THEFT.

1,057,879.

Specification of Letters Patent.

Patented Apr. 1, 1913.

Application filed October 4, 1912. Serial No. 723,937.

To all whom it may concern:

Be it known that I, JOHN ROBERT QUAIN, a subject of the King of Great Britain and Ireland, residing at Dacre House, Victoria street, Westminster, London, S. W., England, have invented certain new and useful Improvements in Alarms for Preventing Theft, of which the following is a specification.

This invention relates to alarm apparatus for use in connection with receptacles such as jewel cases, trunks, safes, and for other purposes, of the kind in which a sensitive electric circuit-closing device, such as a gravity-operated contact, carried by the receptacle, is adapted to be operated automatically, upon the slightest movement of the receptacle, to close an electric circuit of, or otherwise to set in operation, an audible alarm or other signal device, and in which the alarm or signal device, when set in operation, may be provided to continue to operate even though the circuit through the sensitive circuit-closing device be broken.

The invention has for its object to provide a simple and effective form of electrically operated or electrically started alarm mechanism.

According to the invention a sensitive circuit-closing device is provided wholly within the article or receptacle and consisting of a flexible elastic contact member arranged within an encircling fixed contact member in such manner that the slightest movement of the article or receptacle carrying the circuit-closing device serves to set the flexible elastic contact member in vibration, by reason of its inertia, so that it contacts with the fixed contact to close the electric circuit.

According to the invention, moreover, the circuit-closing device is used in the circuit of an electro-magnet provided with an armature the movement of which serves to release a lever or member mounted under spring action and adapted positively to close the circuit of the electro-magnet or a circuit exterior thereto and to short circuit the sensitive circuit-closing device hereinbefore referred to.

In the application of the invention the electro-magnet referred to may be the electro-magnet of an electric bell or like audible signal, the armature carrying a clapper in the usual manner. In cases where it is desired to operate a signal at a distance from

the alarm mechanism the electro-magnet may merely serve for the closing of the circuit leading to the signal.

The application of the invention to an alarm apparatus suitable for a jewel-case or like receptacle is illustrated in the accompanying drawings in which:—

Figure 1 is a plan view of the apparatus. Fig. 2 is a side elevation of the apparatus. Fig. 3 shows the sensitive closing device to an enlarged scale and Fig. 4 is an elevation corresponding to Fig. 3.

In the construction of alarm apparatus illustrated in the drawings there is mounted upon a base board *a* an electric mechanism, such as is used for electric bells, comprising an electromagnet *b* and resiliently mounted armature *c*. The sensitive circuit-closing device consists of a fixed ring contact *d* which may be in the form of a coiled spring and a flexible spring contact *e* carried by a suitable standard *f* and extending centrally through the ring contact *d*. The spring contact *e* is weighted at the free end and is of such length and stiffness that the slightest movement of the base board *a* in any direction serves to cause the spring contact to vibrate and thus to touch and complete a circuit through the ring contact *d*.

A hand switch having a pivoted contact arm *g*, operating by lateral movement over two contact blocks *h*, *i*, is suitably mounted adjacent the standard *f* carrying the interrupter or contact pin *k* of the electro-magnet. Upon the standard *j* which is insulated from the metal base plate *l* of the electromagnet *b*, by the member *m'* there is rotatably carried a contact arm *m*. Adjacent the standard *j* there is mounted a post *n*, with an adjustable contact point, insulated from the base plate *l*, by a member *n'* in such a position that the contact arm *m* may be rotated into contact with it. The contact arm *m* is connected with the switch arm *g* by a coiled spring *o* of such length and strength that when the switch arm *g* is moved over to the contact block *i* the spring *o* will rotate the contact arm *m* against the contact point of the pin *n*, while when the switch arm *g* is moved over to the contact block *h* the spring *o* on compression swings the contact arm *m* away from the contact point through an angle of about 90°. The armature *c* carries a clapper *p* and a pin *q* which in the normal position of the armature serves to arrest the contact arm *m* to

prevent its rotation against the contact point of the pin *n*.

A dry cell *r* or other suitable source of electricity is provided and the circuits therefrom are made in the following manner: The terminal *s* is connected to the coils of the electromagnet which in their turn are connected to the armature *c*. The standard *j* is connected with the contact block *i*. The switch arm *g* is connected with the flexible spring contact *e* and the ring contact *d* is connected to the pin *n* and thence to the terminal *t*.

In setting the apparatus the switch arm *g* is moved to the contact block *i* thus rotating the contact arm *m* until it is arrested by the pin *q*. On a slight movement of the apparatus the circuit is closed between the contacts *d* and *e* by the vibration of the contact *e*, and the current passes through the following parts of the apparatus *s*, *b*, *l*, *j*, *i*, *g*, *e*, *d*, *n*, *t*. The armature *c* is thus set in vibration and the alarm sounded by the striking of the clapper *p* against the side of the containing receptacle or a bell. On the first attraction of the armature *c* the contact arm *m* is released by the pin *q* and closes the circuit through the pin *n*, short-circuiting the hand switch and the sensitive circuit-closing device. The current now passes by way of the following parts of the apparatus: *s*, *b*, *l*, *j*, *m*, *n*, *t*, and the alarm continues to sound until the contact arm *m* is moved away from the pin *n* by the return of the switch arm *g* to the contact block *i*. The end of the contact arm *m* is beveled off to allow of its return past the pin *q*. Such an apparatus ar-

ranged within a jewel case or other movable receptacle when set serves to give an alarm immediately the case or receptacle is moved. Where it is desired to give an alarm at a distance the cell *r* need not be included in the apparatus which serves merely to close an exterior circuit by the contact of the arm *m* with the pin *n*.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In a burglar alarm, the combination with an electrical signal device having a circuit of a substantially horizontally disposed coiled spring, means supporting one end of the spring, the other end being wholly free for vibration, and a contact ring surrounding the free end portion of the spring, the circuit for the signal device being connected to be closed by contact of the spring with the ring.

2. In a burglar alarm, the combination with an electric signal device having a circuit, of a substantially horizontally disposed spring, means supporting one end of the spring, the other end being wholly free for vibration, and a contact ring surrounding the free end portion of the spring, the circuit for the signal device being connected to be closed by contact of the spring with the ring.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

JOHN ROBERT QUAIN.

Witnesses:

WILLIAM EDWARD EVANS,
ROBERT OWEN HUGHES.

561

562

G. L. BEELER.
AUTOMATIC GAME APPARATUS.
APPLICATION FILED MAR. 17, 1919.

1,319,038.

Patented Oct. 21, 1919.

3 SHEETS—SHEET 1.

Fig. 1.

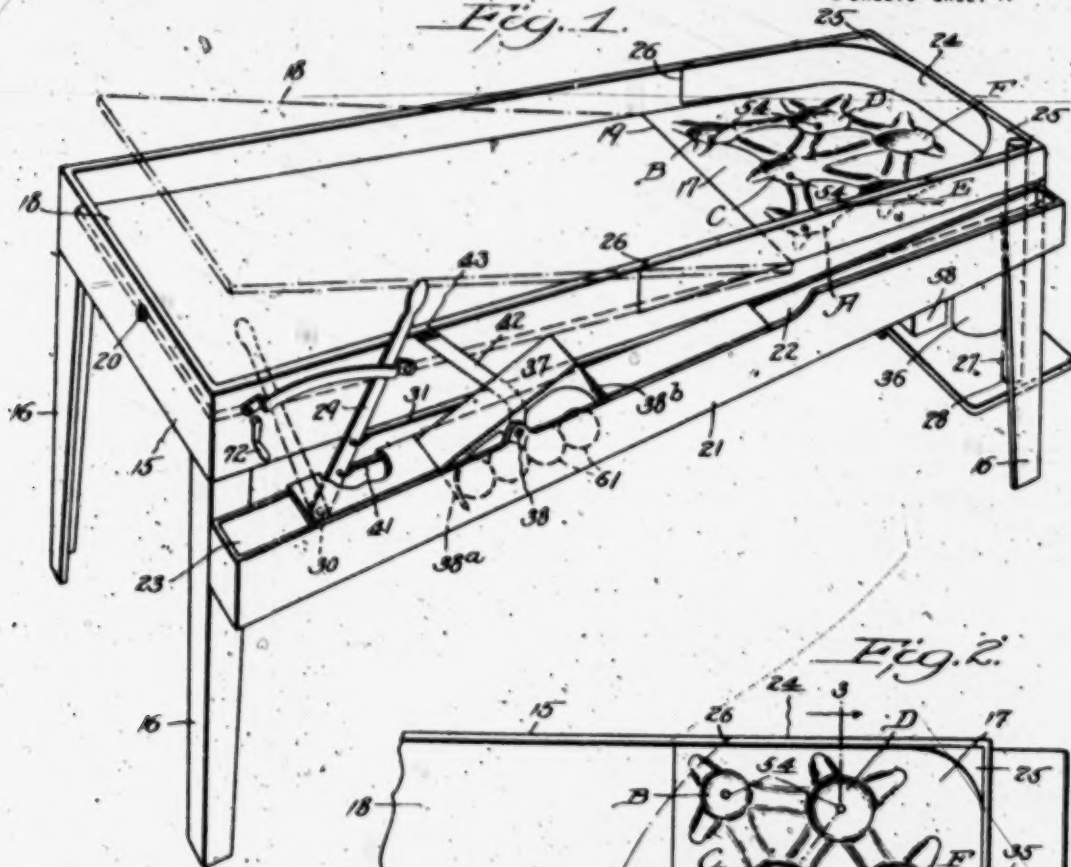


Fig. 2.

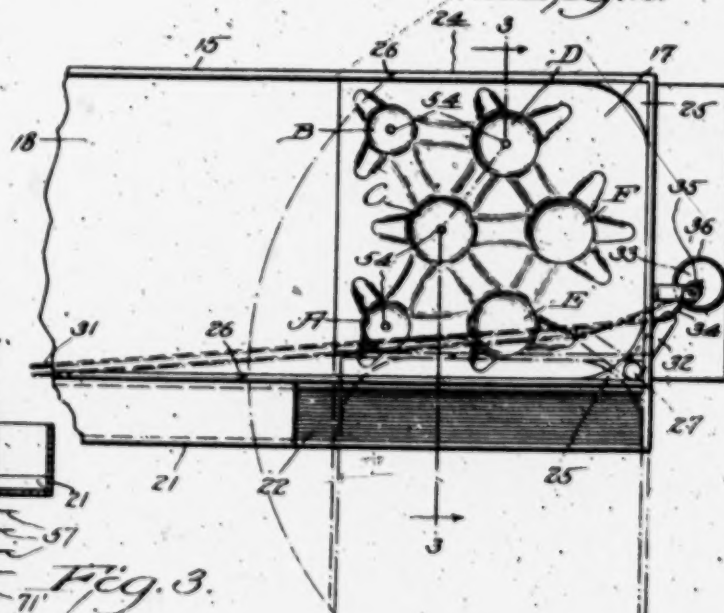
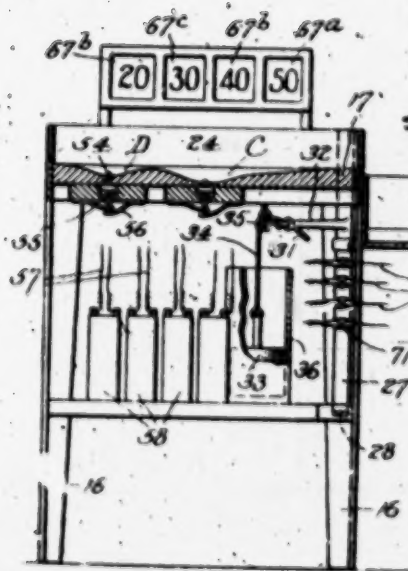


Fig. 3.



Inventor
G. L. Beeler

563

G. L. BEELER.
 AUTOMATIC GAME APPARATUS.
 APPLICATION FILED MAR. 17, 1919.

1,319,038.

Patented Oct. 21, 1919.

3 SHEETS—SHEET 2.

Fig. 4.

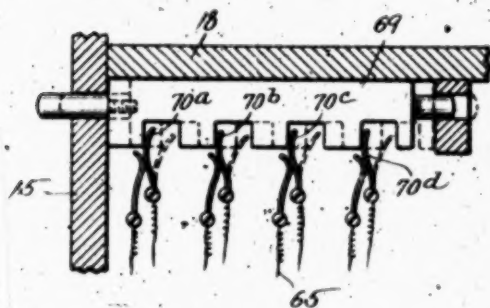


Fig. 5.

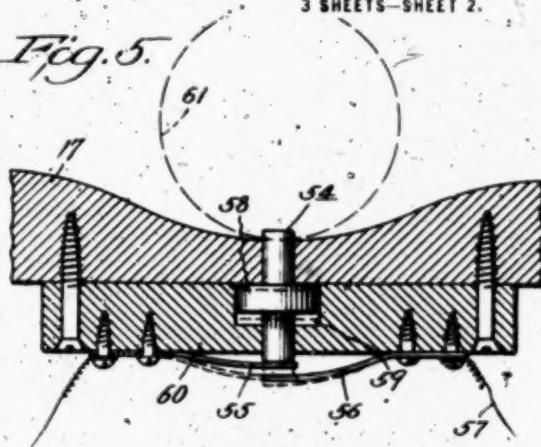


Fig. 6.

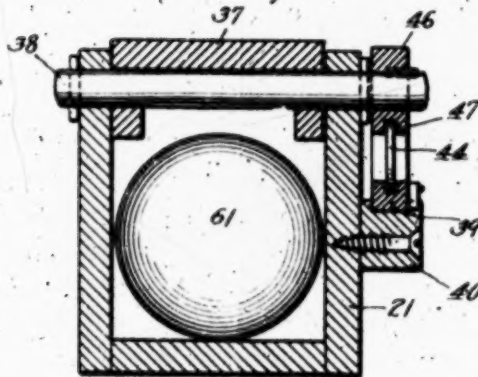


Fig. 7.

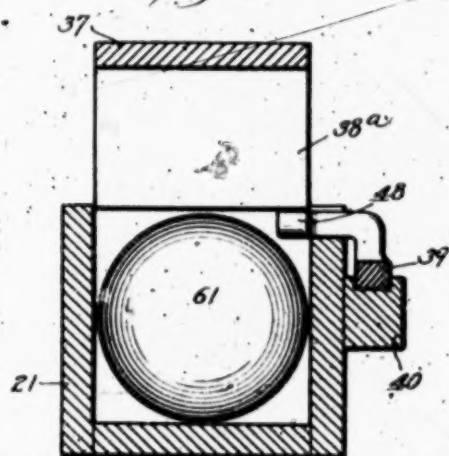


Fig. 8.

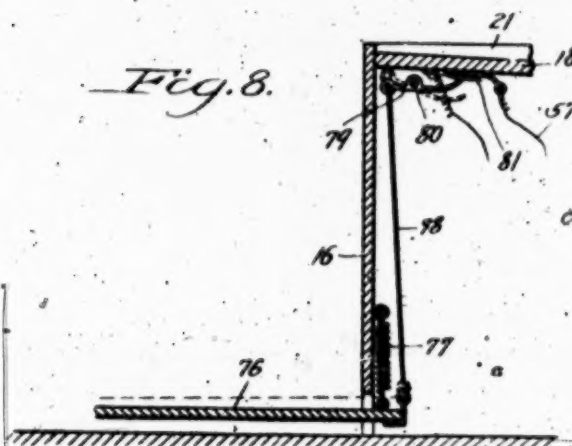
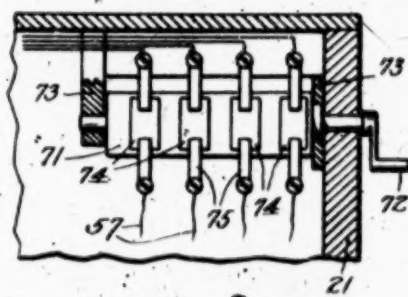


Fig. 9.



Inventor

G. L. Beeler

565

1,319,038.

Patented Oct. 21, 1919.
 3 SHEETS—SHEET 3.

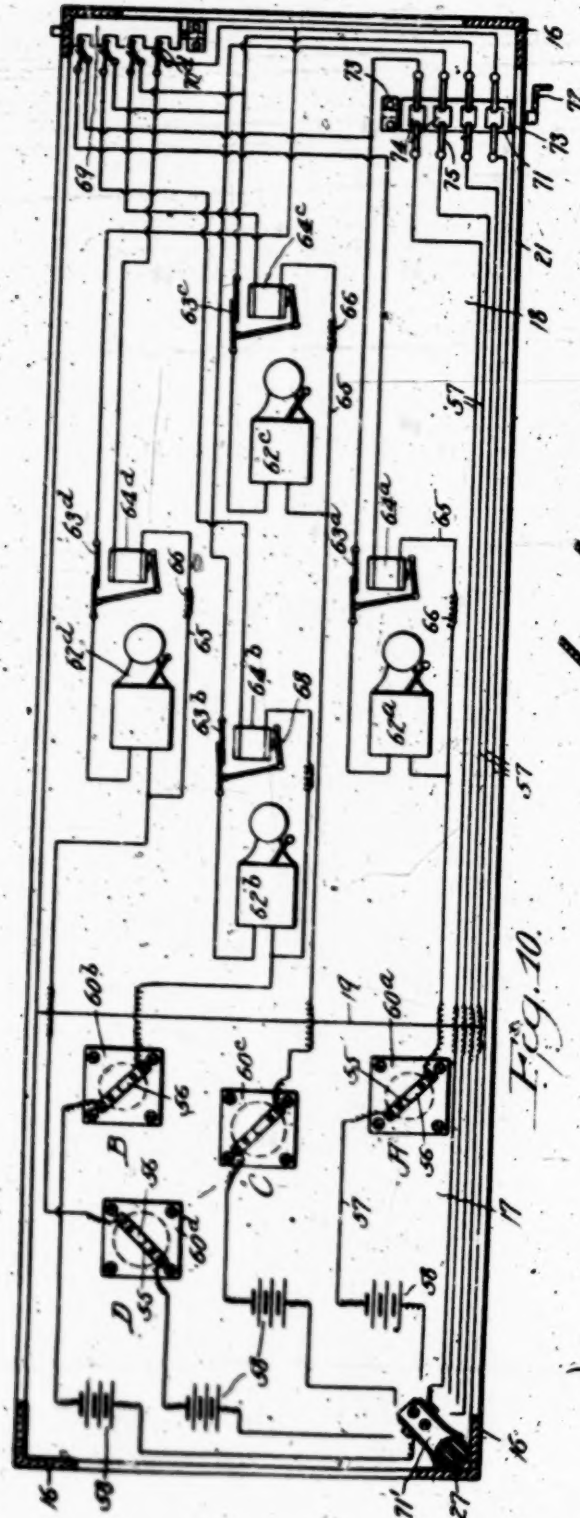


Fig. 10.

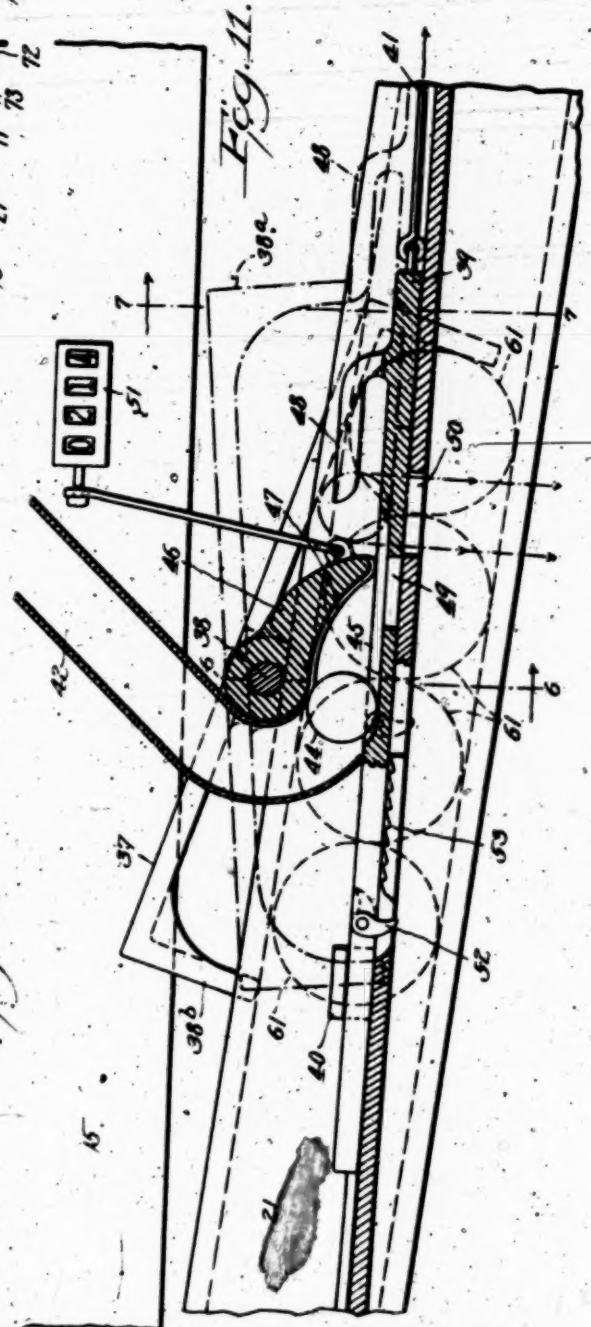


Fig. 11.

Inventor
 G. L. Beell

567 UNITED STATES PATENT OFFICE.

GEORGE L. BEELER, OF MORRISTOWN, NEW JERSEY.

AUTOMATIC GAME APPARATUS.

1,319,038.

Specification of Letters Patent.

Patented Oct. 21, 1919.

Application filed March 17, 1919. Serial No. 333,310.

To all whom it may concern:

Be it known that I, GEORGE L. BEELER, a citizen of the United States, and a resident of Morristown, in the county of Morris and State of New Jersey, have invented a new and Improved Automatic Game Apparatus, of which the following is a full, clear, and exact description.

This invention relates to amusement or game devices and has particular reference to amusement devices of an automatic or semi-automatic nature such as are employed largely in popular amusement resorts.

Among the objects of the invention is to provide an apparatus broadly of the same general nature as the well known Japanese ball game having at one end a pitted field and having a runway leading toward the same along which one or more balls are rolled or delivered from the opposite end of the apparatus, the balls being intended for cooperation with various holes or pits in the field aforesaid, but providing means of a novel and peculiar character for the rendering of signal indications as a result of the balls entering the pits or their equivalent.

Another object of the invention is to provide means under the direct control of the operator or player of the game for removing any ball or balls from the pitted field for subsequent use by either the same or any subsequent player.

Another object of the invention is to provide a game apparatus having a runway and a pitted field at the remote end thereof for cooperation with one or more balls delivered along the runway and having means for sweeping any ball or balls from the pitted field into a return gutter for subsequent use by the same or another player.

Another object of the invention is to provide a game apparatus having peculiarly arranged signal means adapted to be set into operation by a ball entering a pit and also including means to automatically neutralize the signal means if the ball remains in the pit.

Another object of the invention is to provide a game apparatus having a pitted field and a runway along which a number of balls may be rolled toward the pitted field, there being provided independent signaling means for a plurality of pits whereby balls entering such pits will actuate the signaling means in succession, other means being provided to neutralize the action of the signal-

ing means immediately thereafter, and other means being employed to neutralize the last mentioned means and so cause the actuation of all of the signaling means at the same time, when desired.

Another object of the invention is to provide a game apparatus including a pitted field with signaling means cooperating with a plurality of the pits and a runway along which a plurality of balls may be delivered toward the pitted field for cooperation with the several pits, the signaling means being so designed as to be actuated whenever a ball rolls into a pit provided therewith, means also being provided at the end of the game to sweep all of the balls from the pitted field, and means also serving to neutralize the signaling means co-incidentally with the movement of the sweeping means to prevent the actuation of any signal incident to the rolling of a ball into or through any pit in its path.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a perspective view of one embodiment of my invention.

Fig. 2 is a plan view of the field end thereof.

Fig. 3 is a vertical transverse section of the same on the line 3—3, but indicating an auxiliary signal means.

Fig. 4 is a detail view of the master switch for the opening of all of the magnet circuits simultaneously.

Fig. 5 is a detail view of one of the pit switches.

Figs. 6 and 7 are vertical transverse sections on the lines 6—6 and 7—7 of Fig. 11.

Fig. 8 is a detail view of the automatic circuit breaking platform.

Fig. 9 is a detail view of one of the master switches for making or breaking all of the main circuits simultaneously.

Fig. 10 is a bottom plan view of the field and runway portions of the device giving a diagrammatic representation of the electrical connections; and

Fig. 11 is a longitudinal section through the coin controlled devices and the relation thereof to the ball trap shown in side elevation.

5 Without restricting myself in any manner to any special size, form, construction or materials employed in the manufacture or assemblage of this apparatus, I indicate for the purpose of this specification an apparatus embodying a substantially horizontal rectangular frame 15 supported rigidly at any convenient elevation as upon legs or corner posts 16. The pitted field aforesaid is shown at 17 at the rear end of the frame and sufficiently far below the top thereof to provide an effective guard rail therearound. The field 17 generally speaking is level but with a gentle slope or inclination inward from the guard rail and being provided on its upper surface with any suitable number, size or grouping of goals such as pits, shown in this case as six in number and identified by the letters A, B, C, D, E and F.

The runway leading from the front end of the apparatus is shown at 18 and coincides substantially with all of the remainder of the frame. For convenience of access to the electrical features for installation, inspection or adjustment thereof, the runway 18 is hinged to the pitted field along the transverse line 19 so that when unlocked at 20 said runway may be lifted and swung upward and rearward to or beyond a vertical position exposing all or practically all of the electrical devices to direct view for the purposes set forth. Obviously when the game is being played the runway is locked down as shown in full lines in Fig. 1 but preferably with a slight rearward inclination toward the field of goals or pits insuring that any ball or balls in play will be sure to come to rest at some point on the field and most likely in one of the goals.

21 indicates a trough or gutter on one side of the apparatus extending practically all the way from the rear end thereof downward and forward to the front end. The trough is open at 22 and 23, the rear opening 22 being for the reception of the balls delivered from the pitted field by any suitable means so that they will roll downward and forward toward the front end of the gutter from which they may be removed by the next player through the opening 23.

55 For home or private use of the apparatus the gutter may be open at its top throughout its length and the balls may be free to roll from one end to the other so that any player stationed at the front end of the apparatus may play any number of balls, and being provided with means for sweeping the balls from the pitted field whenever desired, said balls will move forward again for subsequent use.

60 The means for moving the balls from

the pitted field and delivering them into the gutter as shown herein comprises a section of the rail portion of the frame which I term the sweeper 24. This sweeper comprises rear and two side walls, the corner portions of which are connected and braced by rounded angle pieces 25 while the side wall portions constitute in effect extensions of the main side rail portions of the runway, being beveled at 26 to limit the movement of the sweeper in its normal idle position. The sweeper is mounted upon and its action controlled by a post 27 journaled for movement around a vertical axis in a step bearing 28 and in one of the corner portions of the pitted field. As one of the many ways in which the sweeper may be operated I provide a hand lever 29 pivoted at 30 at or adjacent to the inner side wall of the gutter below the runway and having its handle projected upward within easy reach of the operator at the front end of the machine. A wire 31, or its equivalent, is connected to the lever and extends rearward therefrom to an arm 32 fixed to and extending laterally from the post 27. The relative lengths of the lever 29 and arm 32 are so designed that when the lever is pulled forward to the dotted line position of Fig. 1, the arm 32 will swing through about 90 degrees carrying with it the sweeper from its normal position to the dotted line position of Fig. 2 causing thereby any balls on the field 17 to be swept into the rear end of the gutter. This forward pull of the lever is all that is expected of the operator to do in the actuation of the machine. When the lever is released an suitable means such as a weight 33 may be employed to return the sweeper and lever to normal position. This weight is shown provided with a cord 34 leading over pulley 35 swiveled to swing around a vertical axis and attached to the end of the arm 32. This weight is preferably slidably fitted in a cylinder 36 constituting therewith dashpot for two important functions: first to prevent a too rapid pull on the lever 29 and also serving to check the return of the sweeper. This apparatus in its entirety being designed for use in public resorts, and without the continuous attention of an attendant, it is important that means be provided to prevent a mischievous player from interfering with its proper and intended operation. Thus with the dashpot shown, or its equivalent, the player cannot cause the balls to be delivered from the field with so much force as to be thrown beyond the gutter, and the cushioning action of the weight in its return movement will prevent slamming of the sweeper when it strikes the fixed portions of the side rails. The swiveling of the pulley 35 around its vertical axis will insure the proper lead of the cord 34 during the swinging movement of the arm 32.

For automatic operation of the apparatus in amusement resorts or the like I provide a coin controlled means for controlling the delivery of the balls forward along the gutter so that a player will be unable to play the game without first depositing a coin in the prescribed manner. It is desirable, however, to so correlate the actuating lever and the ball controlling means that the lever may be actuated at any time for the purpose of actuating the sweeper whether or not a coin be deposited, but the ball controlling means shall not be actuated at any time unless the required coin be deposited. That is to say assuming that a player being supplied with balls plays the same he may use his own pleasure at the end of his play as to whether or not he sweeps the balls from the field into the gutter for subsequent use by another player. If he chooses to so sweep the balls into the gutter he may do so by a simple forward draft upon the lever. If, however, such player passes on without sweeping the field the next player in turn on depositing his coin and pulling forward upon the lever will effect two results simultaneously,—the sweeping of the balls from the field into the gutter and the delivery of another set of balls already in the gutter from the ball trap for his use, and the balls last swept from the field will approach the ball trap in the gutter for subsequent use.

The ball trap includes a member 37 pivoted to oscillate in the top of the gutter around a transverse axle 38 and having a length between its front and rear end walls 38^a and 38^b respectively substantially equal to the combined diameters of that number of balls intended to be delivered at each play. The front end of the trap may be suitably weighted or otherwise caused to assume the normal closed position as in Fig. 1, but it may be tilted upward in front for the delivery of the balls and downward at the rear to check the on-coming balls by any suitable means. 39 indicates an actuating slide movable along a guideway 40 on or adjacent to the inner side wall of the gutter, said slide being connected as by a rod 41 directly to the lever 29 sufficiently far below the wire connection 31 to actuate the slide forward at the same time that the sweeper is actuated, but preferably to a shorter distance. The coin chute 42 having a slot 43 its upper end is located preferably adjacent to the lever so that a coin may be deposited in the slot with convenience when the player is making a reach for the lever. A coin, or its equivalent, shown at 44 passes down the chute and is received upon the slide 39 in a groove 45 therein and beneath an arm 46 fixed to the trap shaft 38. The lower edge of the arm 46 has a groove 47 to receive and retain the upper edge of the coin when delivered forward beyond the

same. With the coin in place as shown in Fig. 11 a forward draft upon the lever 29 will cause the slide to carry the coin forward wiping or rolling beneath the arm 46 and causing the point of the arm to be lifted to a distance equal to the diameter of the coin and causing consequently the lifting of the front end of the trap to the dotted line position of Fig. 11. To prevent the trap from closing before all of the balls within it are delivered forward I provide a finger extension 48 from the slide 39, or its equivalent, to engage beneath the front end 38^a or elsewhere to hold the same in elevated open position until the slide is returned to normal position again as a result of the deliberate action of the dashpot weight. After the coin passes forward beyond the arm 46 it is delivered downward through registering slots 49 and 50 formed in the slide and guideway respectively into any suitable receptacle to be provided therefor. A registering device 51 made of any approved nature may be provided and connected to the coin mechanism if desired to record the number of actuations thereof. I also indicate some suitable full stroke device including for example a pawl 52 pivoted upon the slide and cooperating with a rack 53 to prevent failure of the machine to properly act even though the operator may fail to give a continuous complete forward draft upon the lever.

In the playing of a game with this apparatus added interest and amusement are afforded by some sort of indicating means associated with some or all of the pits or goals in the field 17, and such indicating devices may partake of either visible or audible means or both of any suitable description and located at any desired place either on or away from the main portion of the apparatus. For example I show the first four pits as of the character indicated in detail in Fig. 5 in the bottom of which is a switch 54 in the form of a plunger held normally elevated by a spring contact 55 and spaced normally from a companion contact 56 located in a main circuit 57 in which is located a battery 58 or any other suitable source of electrical energy. The plunger 54 is provided with a collar 57 located within a depression 59 in a switch block 60 secured to the under surface of the field 17. In the diagram of Fig. 10 the several switch blocks are represented by distinguishing characters 60^a, 60^b, 60^c and 60^d, but a specific description of any one of them will be understood as being applicable to all or any number. While I show a separate battery 58 for each signal system this is to be understood as being merely a matter of wiring and under some assemblages a single source of energy may be employed for any number of switch circuits. In the playing of this game any num-

ber of balls 61 may be employed, the radius of which is preferably materially less than the radius of curvature of the pits and materially greater than the depth of the pits so that any ball may roll freely into and out of any pit or from one pit to another repeatedly before coming to rest in one of the pits. Consequently as will be appreciated from Fig. 5 every time a ball rolls into a pit or across the center thereof or comes to rest in a pit having a switch 54 such switch will be depressed, the weight of the ball being superior to the strength of the contact spring 55, thereby closing the normally open switch at the contacts 55 and 56 and thereby closing the circuit through the battery or other source of energy 58.

Any suitable signal devices, either audible, visible or otherwise, may be provided in or related to the several circuits aforesaid which will be made operative or perceptible the instant that the ball depresses the switch plunger 54, or subsequently thereto. For example I show in Fig. 10 an audible signal in the nature of an electric bell 62, one bell for each circuit, and the several bells being distinguished by the literal characters corresponding to the pit switches. In each of the circuits beyond the bell is a normally closed switch 63, the several switches being distinguished by the same literal characters. Adjacent to these normally closed switches are a like number of electromagnets 64^a, 64^b, 64^c and 64^d respectively, and each magnet is connected in parallel in the same circuit by virtue of a branch circuit 65 which may be composed of wire of high resistance or may have interposed therein any suitable resistance coil 66 for the purpose of retarding the action of the magnet slightly over that of the bell. The magnets may or may not be used according to the character of signal employed or the length of the operation or manifestation of the signal means. I may employ a visible signal in the nature of an ordinary annunciator having in the form suggested in Fig. 3 a plurality of compartments 67^a, 67^b, 67^c and 67^d. Whenever any ball rolls over or rests upon any plunger 54 closing the circuit pertaining thereto the bell 62 will ring or the visible signal 67 will be displayed or both if both are used in the same circuit and but for the magnet or some other means for automatically breaking the circuit through the signal means such manifestation will continue as long as the pit switch remains closed. Consequently any bell caused to ring by the closing of such switch will continue to ring if the ball comes to rest thereupon, unless the signal circuit be broken. Since the peculiar attractiveness of this game is dependent upon the repeated rolling in and out of a ball through a pit or a plurality of pits it is obvious that there is a momentary ring of an audible signal

every time a ball depresses a plunger 54, but the pleasure of the game is dependent furthermore upon the stopping of the sounding of the audible signal when a ball comes to rest upon a plunger 54 so that attention will be directed rather toward the behavior of subsequent balls in the other pits, or the driving of a previously located ball. One of the objects therefore of the magnets 64 is to automatically stop the sounding of the audible signals. Since the audible signal and its companion magnet are located in parallel circuits and energized from the closing of the same pit switch, they both operate about the same time though the magnet is retarded slightly to insure that the signal bell will give at least one distinct click before the magnet 64 becomes functional causing the movable armature 68 thereof to push open the normally closed switch 63 by means of a link or finger or its equivalent. The magnet remaining energized while the pit switch is held closed, except as noted below, will insure the breaking of the circuit through the audible or other signal.

At 69 (see Figs. 4 and 10) I provide a switch opener adapted to be pushed by the operator's finger or thumb from the outside of the frame 21. This switch opener is actuated against the combined force of a series of movable switch blades 70^a, 70^b, 70^c and 70^d arranged in the several magnet circuits 65 respectively. All of the magnet circuits will be broken simultaneously as shown in dotted lines in Fig. 4, but when the switch opener is released they will all automatically close as shown in full lines, the normal position thereof. Consequently in the arrangement just referred to when any number of the pit switches are held closed by balls in the pits the opening of the switches 70 breaking the magnet circuits will, of course, deenergize the magnets and thereby the main audible signal circuits will again be closed automatically at the switches 63 causing thereby all of the signal means to become perceptible simultaneously and continue so to be so long as the switch opener 69 is held open. In my practice furthermore I have provided four of the audible signal bells, the same having a musical significance and preferably with the relative qualities "do" "mi" "sol" "do" representing the octave and thirds, whereby any plurality of these bells sounded simultaneously by reason of the opening of the magnet switches will always produce a pleasing chord.

At 71 I indicate a rotary master switch opener having a detachable handle 72 projecting laterally through the opposite side of the frame 21 from the switch opener 69. This rotary switch opener is journaled in bearings 73 on the under side of the runway 18. This rotary switch naturally by friction in its bearings and the other parts associated

therewith will always remain either open or closed until manually actuated. The body of the switch opener 71 is made of wood or other insulation and has fitted thereto a series of plates 74 with which corresponding pairs of contact springs 75 cooperate and which are bridged simultaneously as shown in Figs. 9 and 10. These several switch elements are arranged respectively in the main circuits 57, and as indicated in the diagram the magnet circuits 65 are connected to the main circuits between the two master switches 69 and 71. In the ordinary playing of the game the rotary switch 71 is turned to close all of the circuits and is held in such position by friction as aforesaid with the result that the signal means will be operated in the manner previously described and controlled by the automatic circuit breakers 64. If for any reason the signal means are not to be sounded or manifested the operation of the circuits may be prevented simply by turning the rotary switch breaker 71 far enough for one set of the contacts 75 to pass from the metal plates 74. In some instances it may be desirable for the balls to enter the pits and close the pit switches without causing instant manifestation of the signal means, leaving for subsequent action the simultaneous functioning of such signal means as have their pit switches so closed. One of the ways this result may be accomplished is for the master switch 71 to be left open while the balls are being played, and after the last ball has come to rest the closing of this master switch will produce such simultaneous functioning of the several closed circuits. Thus the bells or lamps of these closed circuits will be manifested either momentarily or continuously according to whether the master switch 69 is left closed or is opened, respectively.

In the playing of the game and assuming that the main master switch 71 is closed it is not ordinarily desirable for the signal means whether audible or otherwise to be perceptible during the operation of the sweeper 24. Consequently I provide on or in connection with the upright shaft 27 an additional master switch 71' which is of substantially the same character as the switch 71 and normally closed when the sweeper is in normal playing position. The moment, however, that the operator draws the lever 29 to sweep the balls into the gutter the rotation of the shaft 27 will cause automatically the breaking of all of the main circuits so that if any ball should roll into or through a pit having a switch no signal indication will be given.

Referring again to the patronage of this invention by the general public it is desirable to provide means whereby the main circuits will be broken automatically whenever a player leaves the apparatus, it being un-

derstood that no member of the public may be depended upon to turn the main switch 71 if it be employed in a public machine. Consequently in order to avoid the danger or loss of current under such circumstances I provide means such as indicated in Fig. 8 or its equivalent to insure that when no one is present to play the game all of the circuits will be automatically broken. To this end I employ a platform 76 on which the operator stands while playing the game but which when unoccupied will be held elevated by means of a spring 77 located in or adjacent to one or both of the front legs 16 of the apparatus. From the rear end or corner of the platform 76 a connection 78 leads to a lever 79 pivoted at 80 beneath the runway 18 and adapted to actuate and close a master switch 81 arranged in the main circuits. When, however, the player leaves the platform the master switch 81 will be broken. Unconsciously, therefore, the operator will control the making or breaking of the main circuits. Obviously the master switches 69, 71, 71' and 81 may all be used in the same assemblage or any number less than all of them.

I claim:

1. In game apparatus, the combination of a field, having a pit, a movable projectile adapted to enter the pit and come to rest therein, signal means, and devices to cause the signal means to be perceptible when the projectile enters the pit and thereafter to become imperceptible when the projectile comes to rest in the pit.

2. In game apparatus, the combination of a field having a goal, a ball adapted to roll into said goal, signal means, and devices acting upon the signal means to cause the signal means to become perceptible when the ball rolls into the goal and immediately thereafter to become imperceptible.

3. In automatic game apparatus, the combination of a field having a pit, a ball adapted to roll over the field and into said pit, signal means, devices to cause the signal means to become perceptible when the ball rolls into the pit, and means to cause the signal means to automatically become imperceptible when the ball stops in the pit.

4. In automatic game apparatus, the combination with a field having a plurality of goals and a ball adapted to roll over the field and from one goal to another, of automatic signal means set into action every time the ball rolls into a goal.

5. In automatic game apparatus, the combination with a field having a plurality of pits and a ball adapted to roll from one pit to another and back and forth through any pit, of signal means set into action automatically every time the ball rolls into or through a pit.

6. In automatic game apparatus, the com-

combination with a field having a plurality of pits and a plurality of balls adapted to be rolled over the field and into various pits thereof, of signal means associated with some of the pits and means to cause the signal means to become perceptible each time a ball rolls into or through one of the signal associated pits and immediately thereafter to become imperceptible, and means to cause all of the signal means to become perceptible simultaneously after all or any desired number of the balls have been played.

7. In automatic game apparatus, the combination with a field having a plurality of pits therein and balls adapted to roll into and through the same, of signal means associated with the pits including normally open switches in the pits adapted severally to be closed when the balls roll into or through the pits causing a signal device to become perceptible at such instant, electric means to automatically stop the action of the signal means when a ball comes to rest in a switch supplied pit, and means to cause all of the signal means previously actuated to become perceptible simultaneously after a number of balls have been rolled into the pits.

8. In automatic game apparatus, the combination with a field having goals and a plurality of balls to be rolled thereover and into or through any of the goals, of signal means including electric circuits and normally open switches at the goals adapted to be closed by a ball rolling into or through the same and held closed when the ball comes to rest therein, each closing of such switch serving to cause the signal means to become perceptible, and means to automatically break the circuits and prevent the action of the signal means when the player leaves the apparatus.

9. In automatic game apparatus, the combination with a field of goals and a ball adapted to be rolled thereover and into and through any of the goals, of means under the control of the operator from a distance remote from the field to cause the ball to be removed from the field and returned to him.

10. In game apparatus, the combination with a runway, a field at one end of the runway and a plurality of balls adapted to be rolled along the runway and come to rest upon the field, of means actuable from the end of the runway remote from the field to cause the removal of all of the balls simultaneously from the field and their return to the player.

11. In automatic game apparatus, the combination with a runway, a field at one end of the runway and one or more balls to be projected along the runway to come to rest upon the field, of a manually controlled member within reach of the operator remote from the field, and means operated from the manually controlled member to cause the removal of all of the balls simultaneously

from the field and their return to the operator.

12. In automatic game apparatus, the combination with a runway, a field associated therewith and one or more balls to be projected along the runway to come to rest upon the field, of a manually controlled member within reach of the operator remote from the field, a return gutter for the balls along the runway, a sweeper movable over the field to cause the balls to be swept from the field into the gutter for automatic return to the operator, and connections between the manually controlled member and the sweeper.

13. In automatic game apparatus, the combination with a runway, a pitted field at one end thereof and one or more balls adapted to roll into the pits, of signal means adapted to be made perceptible when a ball rolls into a pit, means under the control of the operator remote from the field to remove the balls therefrom for automatic return to him, and means to prevent the perceptibility of the signal means automatically while the ball removing means are in operation.

14. In automatic game apparatus, the combination with a frame, a field with goals at one end of the frame, a runway within the frame leading toward the field and along which one or more balls may be projected toward the field, of signal means adapted to be actuated as a result of one or more balls rolling into the field goals, certain of said signal means being carried on the under surface of the runway, and means providing for the lifting of the runway with respect to the frame for easy accessibility to the signal means carried thereby.

15. In automatic game apparatus, the combination with a field having a plurality of goals and a plurality of balls adapted to be rolled over the field and into various goals thereof, of audible signal means associated severally with some of the goals, said several signal means being different in character, and means to cause the signal means to be sounded each time a ball rolls into or through one of the signal associated goals and immediately thereafter to become silent.

16. In automatic game apparatus, the combination with a field having a plurality of goals and a plurality of balls adapted to be rolled over the field and into various goals thereof, of a plurality of bells having musical qualities and of different characters associated with some of the goals, means to cause the bells to be sounded in succession each time a ball rolls into or through the goals with which they are severally associated, means to cause the several bells to become silent immediately after they have been sounded, and means to cause all of the

balls associated with goals having balls therein to be sounded simultaneously to produce a musical chord.

17. In game apparatus, the combination with a runway, a field at one portion of the runway, a plurality of balls adapted to be rolled along the runway and come to rest upon the field, and signal means associated with said field and adapted to be caused to become perceptible by the action of the balls, means actuatable from a portion of the apparatus remote from the field to cause the removal of all of the balls simultaneously from the field and their return to the player, and means to prevent the perceptibility of the signal means while the ball removing means are in operation.

18. In game apparatus, the combination with a runway, a field at one end of the runway, a plurality of balls adapted to be rolled along the runway and come to rest upon the field, a return gutter to convey the balls from the field end of the runway toward the player, a trap cooperating with the gutter, and means actuatable from the end of the runway remote from the field to cause the removal of all of the balls from the field and their return toward the player and into the trap.

19. In automatic game apparatus, the combination with a runway, a field as-

sociated therewith, and one or more balls to be projected along the runway to come to rest upon the field, of a hand lever within reach of the operator remote from the field, 35 a return gutter for the balls along the runway, a sweeper movable over the field to cause the balls to be swept therefrom into the gutter for automatic return to the operator, connections between the lever and 40 the sweeper, and means to automatically return the sweeper and lever to normal position after the lever is released.

20. In automatic game apparatus, the combination with a runway, a field as- 45 sociated therewith, and one or more balls to be projected along the runway to come to rest upon the field, of a return gutter leading from the field toward the player, a ball trap therein, a manually controlled member 50 adjacent to the trap, means to remove all of the balls simultaneously from the field into the gutter for automatic return into the trap, connections between the manually controlled member and the ball removing 55 means, and coin controlled connections between the manually controlled member and the trap for the delivery of balls from the trap when the manually controlled member is actuated to remove balls from the field.

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576 July 24, 1928.

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1,678,573

AMUSEMENT DEVICE

Filed Sept. 24, 1927

2 Sheets-Sheet 1

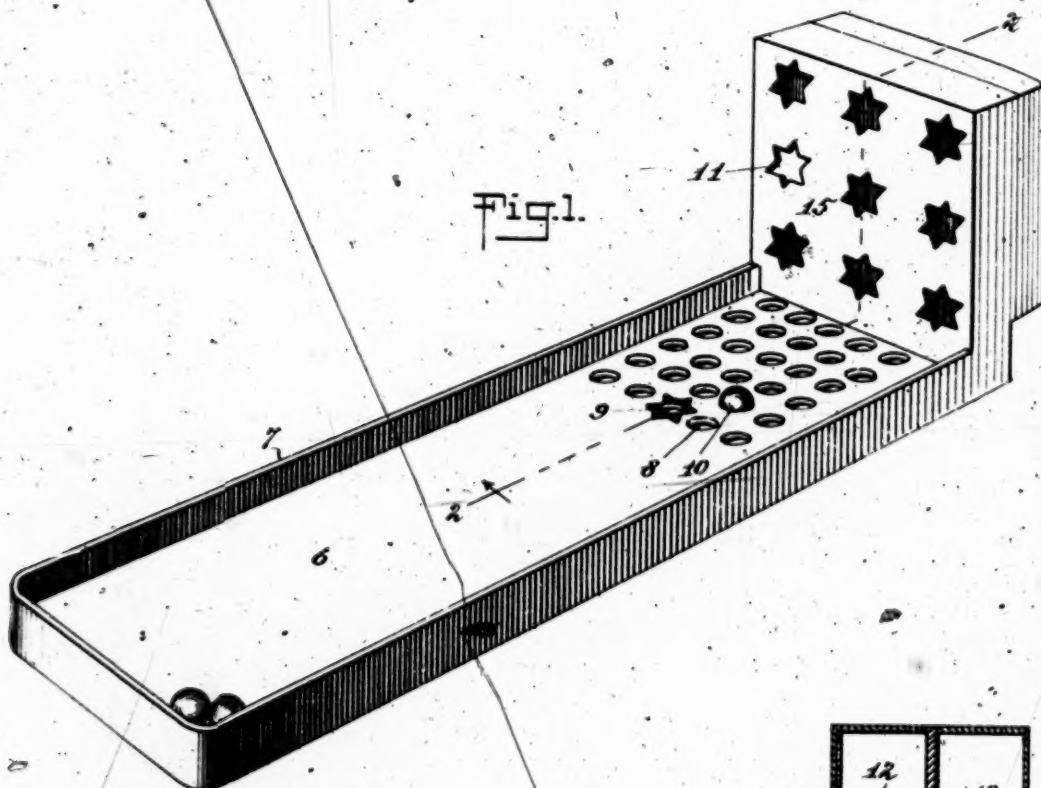


Fig. 1.

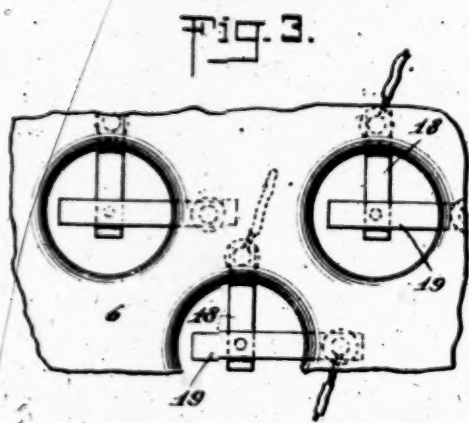


Fig. 3.

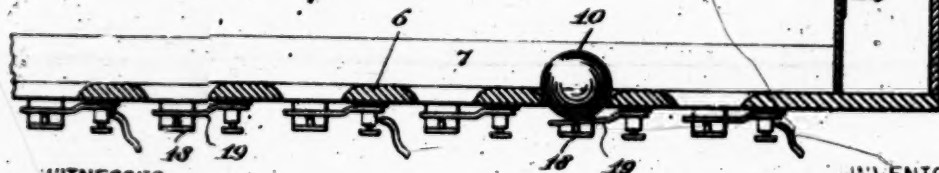


Fig. 2.

WITNESSES

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2 Sheets-Sheet 2

Fig. 4

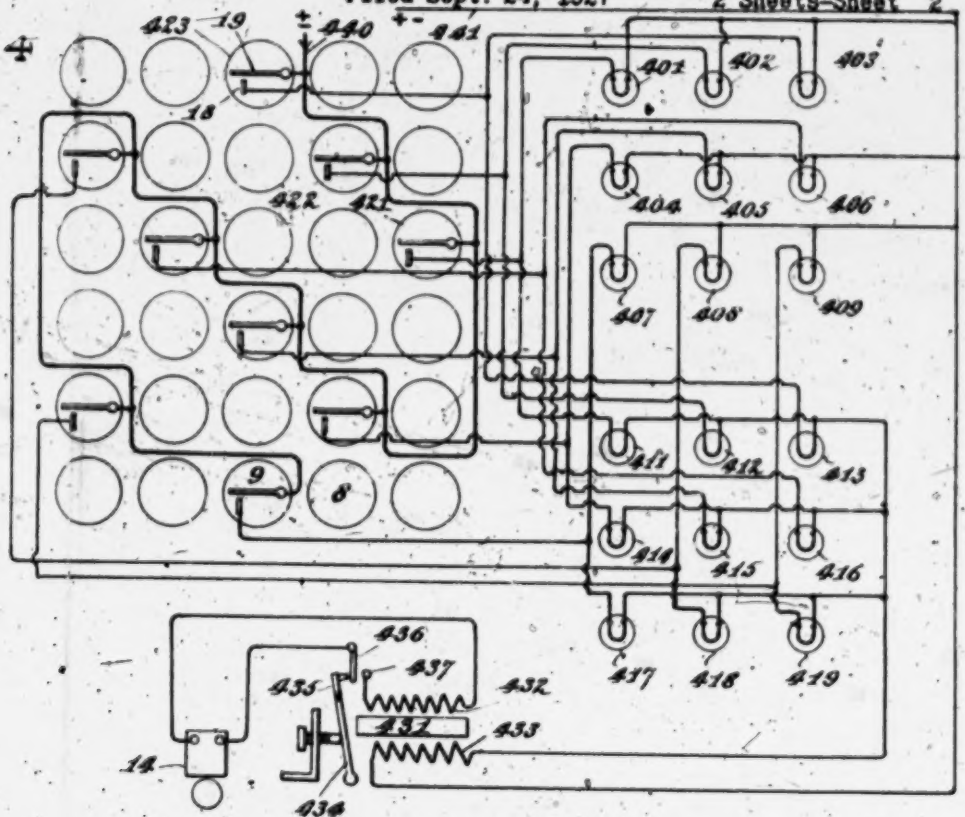
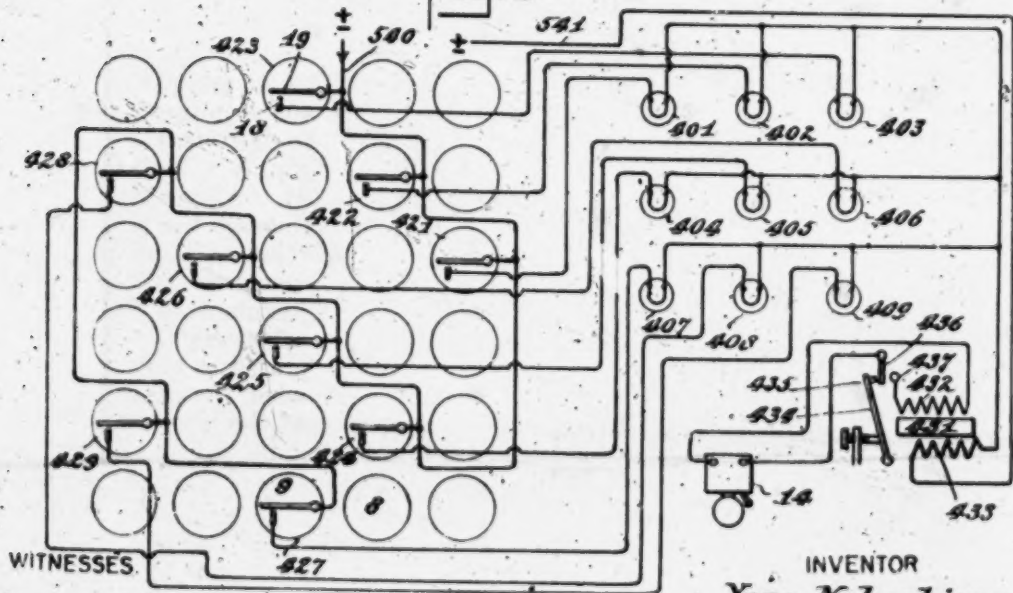


Fig. 5



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Patented July 24, 1928.

1,678,573 579

UNITED STATES PATENT OFFICE.

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AMUSEMENT DEVICE.

Application filed September 24, 1927. Serial No. 221,828.

This invention relates to new and useful improvements in amusement devices.

One object of this invention is an improved amusement device adapted to signal the attendant and the player when the latter succeeds in making a winning play.

Another object is an improved amusement device adapted to differentiate between different winning plays which entitle the player to receive different prizes.

In accordance with this invention the amusement apparatus consists of a table or other device provided with a plurality of receptacles. The player seeks to roll the ball or other object of play into certain distinctively marked receptacles in the group, in an endeavor to make a prize-winning play. Those receptacles which constitute prize-winning plays, in addition to being visibly differentiated from the remaining receptacles are also furnished with signal contacts, each contact controlling, over a suitable electric circuit, a visible signal indicator which operates when the ball lodges in the receptacle with which the signal contact is associated, thus serving to indicate to both the player and the attendant that a prize-winning play has been made. The invention further contemplates that whenever the player succeeds in making a play or a series of plays entitling him to a grand prize a further and additional signal will operate, which will indicate to both the player and the attendant that the player is entitled to a grand prize.

In the drawings, comprising two sheets, Figs. 1 to 5 inclusive,

Fig. 1 is a view in perspective of the amusement device or playing table;

Fig. 2 is a sectional view along the line 2-2 of Fig. 1;

Fig. 3 is a detailed plan view of a portion of the playing table and the signal contacts associated with receptacles therein;

Fig. 4 is a schematic drawing of one form of circuit network used in the signal system; and

Figure 5 is a schematic drawing of an alternative form of circuit network which may be used in the signal system in place of the network of Fig. 4.

Like reference characters designate like parts throughout the several figures.

The device consists of a playing table 6 which is preferably provided with a wall 7 secured to the sides thereof. At one end of

the table a series of receptacles or pockets is provided, such as are indicated at 8 and 9 of Fig. 1. The player stands at the front end of the table, that is, at the end remote from the receptacles, and is provided with a plurality of playing objects, which in the present case consist of balls such as are indicated at 10 in Fig. 1. The balls are of such dimensions that each of them is adapted to rest in any receptacle without passing therethrough, as is best indicated by the ball 10 of Fig. 1.

A certain number of receptacles are selected as prize-winning receptacles and are differentiated from the remainder by suitable marking. The applicant usually designates the prize-winning receptacles by means of stars and terms them "star numbers". Each prize-winning receptacle or star number is provided with a pair of contacts 18 and 19, best indicated in Figs. 2 and 3. These contacts are so arranged that they are normally separated, but whenever the ball 10 rests in a prize-winning receptacle the weight of the ball 10 is sufficient to bring the spring 19 into physical contact with the contact member 18. Whenever the ball 10 is removed from the receptacle the natural resilience of the spring 19 causes it to break physical contact with the contact member 18.

As best indicated in Figs. 4 and 5, one group of contact springs (in the drawings, the contact members 19), are all strapped together by a suitable strap wire, and the other contact members (in the present instance the contact members 18), are connected by individual leads to a series of lamps, there being one lamp associated with and peculiar to each prize-winning receptacle. One side of each lamp is connected to a suitable strap wire leading to a source of electric current supply. Thus, whenever a pair of contact members 18 and 19 are closed by the weight of the ball 10 an electric circuit will be closed to illuminate one of the lamps and the associated star, thereby indicating to both the attendant and the player that the latter has succeeded in rolling the ball into a prize-winning receptacle.

The lamps 401 to 409 inclusive (Figs. 4 and 5), are arranged in a cabinet consisting of a partition 16 and screen 15 perforated as at 11 (Figs. 1 and 2), by star-shaped apertures through which the illuminated lamp is adapted to display a star-shaped symbol or emblem. The cabinet is best indi-

cated in Figs. 1 and 2. In addition to the signal lamps 401 to 409, which are indicated in Fig. 2 by the reference character 12, a second series of lamps 411 to 419 (Fig. 4), are also sometimes used. This latter group of lamps is indicated by the reference character 13 in Fig. 2. When the second group of lamps is used they may, if preferred, be mounted upon the opposite side of the partition 16, as indicated in Fig. 2, and a suitable cover member 17 may be placed thereover to form a second cabinet, which serves to protect the lamps from damage. Mounted either in or adjacent to either one of the cabinets is an audible signal 14 which may consist of a bell, buzzer, or any other preferred form of audible signalling means. A relay 431 (Figs. 4 and 5) is also mounted either in or adjacent to one of the cabinets. The relay 431 serves to control the operation of the audible signal 14 as hereinafter more fully described.

The general operation of the device is as follows:

The player is supplied with a plurality of objects which are ordinarily sponge rubber balls of the character of the ball 10 (Figs. 1 and 2). The player proceeds to roll the balls over the table, in an attempt to lodge them in prize-winning receptacles or star numbers, as at 9 (Fig. 1). Whenever the player is successful in so doing the contact members 18 and 19 associated with said prize-winning receptacles are closed and one of the lamps 12 (Fig. 2) will be illuminated. Referring to Fig. 5, we will assume that the ball has lodged in the receptacle numbered 423, in which event lamp 403 will be illuminated over the following circuit: from a source of current supply, which may be either alternating current or direct current (which in the drawings is assumed to be alternating current), over the lead 540, contacts 19 and 18 of receptacle 423, filament of the lamp 403, winding 433 of the relay 431, lead 541, to the other side of the source of current supply. The lamp 403 is accordingly lighted. Although the current is now flowing through the winding 433 of the relay 431 the relay will not be operated, as it is given a marginal adjustment. This marginal adjustment is of such a character that the armature 434 of relay 431 will only be operated to close the contacts 435, 436 and 437 when the player has succeeded in lodging all of the played objects or balls 10 with which he is furnished, in prize-winning receptacles or star numbers. Ordinarily, the player is furnished with three balls; consequently, in order to operate the relay 431 it is necessary for him to lodge all three of the balls in prize-winning receptacles. If he succeeds in lodging only one or two of the balls in prize-winning receptacles the relay 431 will not operate, although two of the lamps (401

to 409 inclusive), will be eliminated. Whenever the player succeeds in lodging all three of the balls in prize-winning receptacles three of the lamps of the group 401 to 409 inclusive will be illuminated and the relay 431 will attract its armature 434 thereby closing the contact members 435, 436 and 437, to close a local circuit, including the buzzer, and another winding 432 of relay 431 which is arranged in inductive relation with the winding 433 of the relay.

As heretofore set forth, and as indicated in the drawings, the applicant contemplates that ordinarily the source of current supply will be alternating current, in which event the current flowing in the winding 433 of the relay will, whenever the armature 434 is attracted and contacts 435, 436 and 437 are closed, induce a current of like characteristics in the secondary winding 432 of the relay, which current will furnish sufficient power to operate the audible signal 14.

It should be understood however, that if direct current is employed in place of alternating current the winding 432 may be disconnected and a circuit to operate the audible signal 14 may be provided which will include one side of the source of current supply, the winding of the audible signal 14, contact 436, thence, by way of contact 437 to the other side of the source of current supply.

Under some conditions it may be deemed desirable to increase the marginal range of the relay 431. When this is desirable the second group of lamps (411 to 419, see Fig. 4), may be employed. These lamps are connected with lamps 401 to 409 inclusive, respectively, lamp 411 being in multiple with lamp 401; lamp 412 being in multiple with lamp 402, etc. With this arrangement, whenever one of the lamps 401 to 409 is illuminated, one of the lamps 411 to 419 also receives a substantial current flow, which may or may not illuminate said lamp. As these lamps, however, which are best indicated at 13 in Figure 2, are mere resistance lamps, it is not material that they should be fully illuminated, or that they should be illuminated at all. It is obvious, however, that by placing resistance lamps (of the character of the lamps 13 in Fig. 2) in multiple with the lamps 401 to 409 inclusive, the variation in resistance of the lamp network is considerably increased, resulting in an increase in variation in the current flowing in the network when the lamps 13 are employed, so that the operating margins of the relay 431 will be more widely separated, that is, it will require considerably more current to operate it when two or more sets of lamps (12 and 13—Figs. 2 and 4) are employed, than when only one set of lamps is employed.

The armature 434 of relay 431 is qu

massive and is provided with a suitable adjusting screw by means whereof the position of the armature 434 with respect to the core of the relay 431 may be varied at will.

What is claimed is:—

1. In an amusement apparatus a playing table, recesses in the table comprising a target for a played ball, certain of the recesses visibly distinguishable from the remainder being designated as prize-winning recesses, each prize-winning recess being provided with a contact which is adapted to be closed when a ball is positioned in the recess, a plurality of signals operable to display a visible positive signal, there being as many signals as there are prize-winning recesses, a plurality of circuits, each circuit comprising one contact and one visible signal, a relay operable when a plurality of visible signals are positively displayed but non-operable when a single visible signal is positively displayed, a circuit common to the relay and all of the visible signals, and an audible signal operable under control of the relay.

2. In an amusement apparatus and in

combination, a playing table, recesses therein comprising a target for a played ball, certain of said recesses visibly distinguishable from the remainder being designated as prize winning recesses, each prize winning recess being provided with a circuit closing contact, a series of lamps, there being one lamp peculiar to each prize winning recess, a plurality of circuits, each circuit comprising one lamp and one circuit closer, each circuit closer being operable responsive to the positioning of a ball in its associated recess to close the circuit to light its associated lamp as a positive signal, a marginal device common to all of said circuits, said device being non-operable when a single lamp is lighted but operable when a predetermined number of lamps are lighted, an electro-responsive audible signal, and a circuit therefor closed by the operation of said marginal device.

Signed at New York city, in the county of New York and State of New York, this 19th day of September, A. D. 1927.

YOZO NAKASHIMA.

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June 2, 1931.

W. F. NEUBECK

ELECTRIC SWITCH

Filed May 13, 1929

1,808,060

Fig. 1.

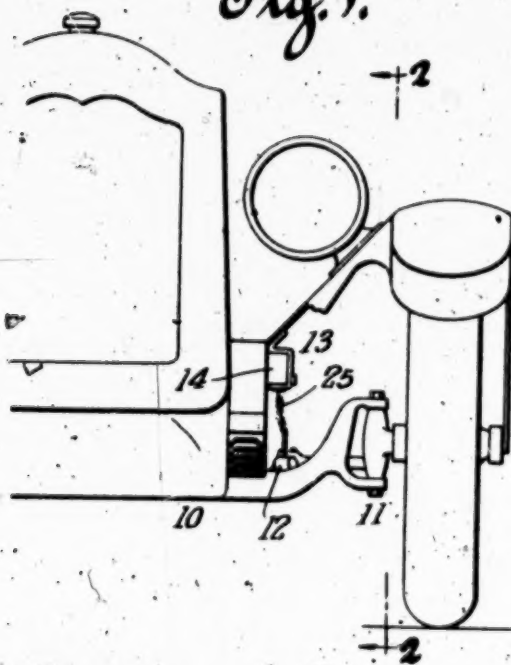


Fig. 2.

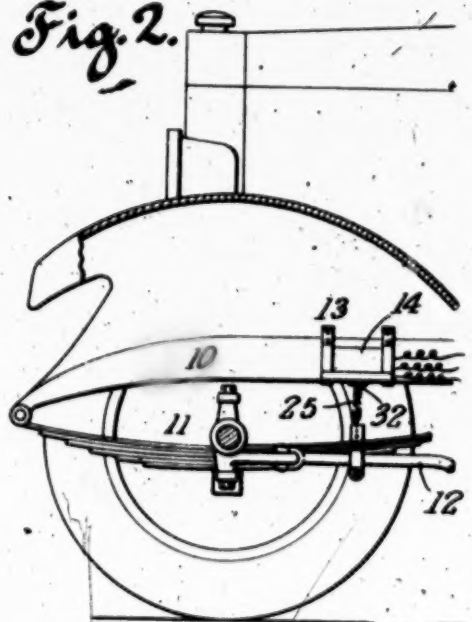


Fig. 4.

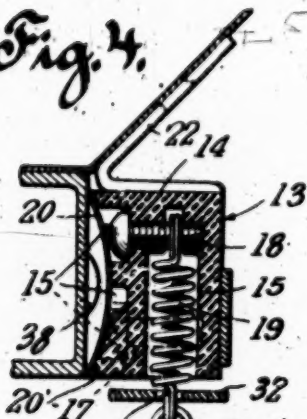


Fig. 3.

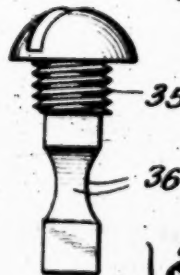
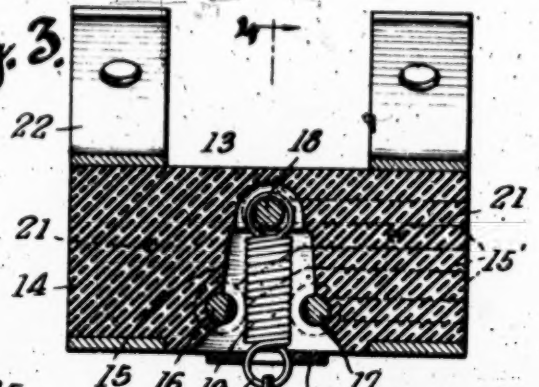


Fig. 5.

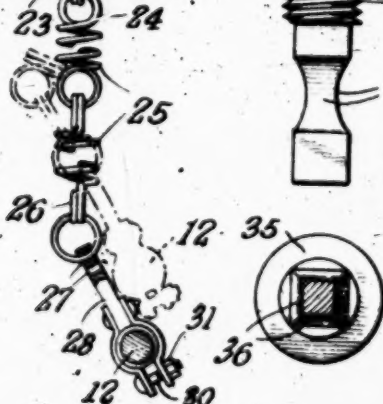


Fig. 3a.



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ELECTRIC SWITCH

Application filed May 13, 1929. Serial No. 362,603.

This invention relates to improvements in electric switches and has particular reference to a switch for use in connection with direction signals for motor vehicles.

The general object of the invention resides in a switch especially constructed for operation by the drag link of the steering mechanism during the actuation of the steering mechanism to turn the vehicle either right or left.

One of the main objects of this invention is to provide an electric direction signal switch adapted to be mounted on a stationary part, such as the chassis or fender, of a motor vehicle adjacent the drag link and which includes an insulating block having a pocket, an extensible helical spring switch arm pivoted to swing between two specially constructed switch contacts, all enclosed within the pocket of the block, the switch arm being pivotally connected at a point immediately below the block, to the drag link, by loosely connected similar extensible helical spring links to accommodate the relative vertical movements of the chassis with respect to the drag link which, in cooperation with a friction element mounted on the connecting eye of the switch arm, prevents accidental operation of the switch arm when traveling over an uneven or rough road.

A further object of the invention is to provide, in an electric switch, an insulating block to house the spring switch arm and contacts, having a concave surface adapted to allow for any obstruction, such as a bolt head or nut, which might be present at the place where the switch is to be secured.

A further object resides in the provision of means adapted to cooperate with the insulating block whereby the spring switch arm is maintained in neutral position irrespective of the vibration or jolting of the vehicle when travelling over an uneven or rough road.

A further object resides in the novel construction of the electric switch contacts by providing concave surfaces on said contacts so disposed with relation to the helical spring switch arm, that when the latter is caused to bear against either switch contact to complete an electric circuit, the contacting surfaces

are substantially coincident, thus providing a positive, enduring and timely electrical connection.

It has been found by experiment that for the efficient operation of the device, it is essential that the helical extensible switch arm, when in neutral position, be unaffected by the vibration or jolting of the vehicle and this is accomplished by providing a helical spring switch arm of such length that when normally retracted its helix is wholly contained within the pocket of the block and its connecting eye extending through the opening of the pocket, and by further providing a friction element mounted on the connecting eye of the switch arm which is adapted, when the vehicle traverses a rough road, to frictionally engage the bottom of the insulating block to hold the switch arm in neutral position and prevent possible swinging or flexing of the latter and thereby prevent accidental actuation of the signal. Thus, any upward pressure due to vibration or jolting of the vehicle will spend itself, firstly, in contracting the spring switch arm and spring connecting links and, then, in buckling the connecting links without affecting the position of the spring switch arm.

It has been further found that for efficient operation of the switch, a predetermined distance between the switch contacts and the helical switch arm must be maintained. This requirement is essential so that the switch arm may cooperate with either switch contact to close an electrical circuit at the very moment the steering mechanism is caused to be operated to make the desired turn; for, if the proper distance is not maintained, the electrical circuit would not be completed until the vehicle had already commenced to make the turn, that is, the signal would be delayed or retarded.

If conventional cylindrical switch contacts were used, then, since the helical spring switch arm is substantially circular in cross-section, the surfaces would virtually contact at a point and with continual recurring use the contacting surfaces would very soon wear to such a degree that the signal would be delayed or retarded; and, furthermore, if a high

resistance substance casually found its way to the point of contact; the switch would fail to function.

To overcome this disadvantage, I have provided in my device switch contacts having concave surfaces disposed with relation to the helical spring switch arm, so that when the latter is caused to bear against either switch contact to complete an electrical circuit, the contacting surfaces are substantially coincident, thus providing a positive, enduring and timely electrical connection.

It has been further found that for proper operation of the switch, it is essential that the same be mounted so that the switch arm and connecting links are in true horizontal or vertical position, therefore, since the drag link moves arcuately, it is necessary to have at least two flexible and extensible links joining the switch arm to the drag link, as otherwise, if only a single connecting link were used, and after a brief constant use, the latter would lose its shape and interfere with the successful operation of the switch.

In the present state of the art there are numerous electric switches used to signal the application of a brake or the turning of a vehicle, wherein electrical contact is made through the intermediate operation of flexible means with the part moved, but they are generally impractical, complicated, and numerous in parts, easily put out of commission by use, and which cannot be mounted without difficulty.

In one type, parts of the switch are mounted on the pitman arm and move therewith to make electrical contact with stationary contacts. The disadvantage of this type of electric switch lies in the fact that, aside from the difficulty of mounting, the device receives considerable wear and with constant use, parts of the device will loosen from the pitman arm.

In another type of control switch for vehicle signals there is provided a helical spring as a flexible contact member insulatedly mounted at one end in a conducting sleeve, the free end of the spring extending a distance beyond the sleeve and connected by flexible means to a brake mechanism, and as the brake rod is caused to be actuated, the helical spring contacts with the sleeve and thus closes an electrical circuit. The disadvantage of this type lies in the fact that as the helical spring extends a distance beyond the sleeve there is nothing to prevent the flexing of that part of the helical spring within the sleeve and making accidental electrical contact therewith, when travelling along an uneven or rough road. Furthermore, when the device is in operation the surface contact between the helical spring and the sleeve is very small and continual recurring use of the device will very shortly wear the contacting parts, and thus either causing delay or re-

tardation of the signal or failure to function.

It is the purpose of this invention to overcome, among others, the above mentioned disadvantages.

With the above and other objects in view, the invention resides in certain novel construction and combination and arrangement of parts, the essential features of which are hereinafter fully described, are particularly pointed out in the appended claims, and are illustrated in the accompanying drawings, in which,

Figure 1 is a fragmentary elevational view of an automobile showing my improved electric switch mounted for operation thereon.

Figure 2 is a vertical sectional view taken on the line 2—2 of Figure 1.

Figure 3 is an enlarged sectional view through my improved switch, showing the helical spring switch arm in retracted position and the gripping element frictionally engaging the block, which occurs when the automobile travels over a rough road.

Figure 3a is a fragmentary enlarged view of one of the switch contacts.

Figure 4 is a vertical sectional view taken on the line 4—4 of Figure 3, except that the helical spring switch arm and gripping element are shown in operative position.

Figure 5 illustrates a modified form of switch contact.

Referring more particularly to the drawings, the reference numeral 10 designates the chassis of an automobile and 11 the steering mechanism therefor, which includes a drag link 12 for actuating my improved switch 13 for controlling the operation of any direction signal device operable by electricity and which is intended to indicate right and left turns. The switch 13 above referred to comprises a substantially rectangular insulating block or casing 14 composed preferably of rubber, having a concave side 20' adapted to house any obstruction, such as a nut or bolt-head 38, which might exist at the place where the switch is secured and a substantially bell-shaped pocket or cavity 15 which extends to the bottom face of the block for a purpose to be presently explained. The concave side of the block 14 is provided with grooves 15' which extend to one of the ends of the block.

Electric wires (not shown) are adapted to pass through the grooves 15' for connection with paralleled spaced electric switch contacts 16 and 17, mounted in the block 14 within the bell-shaped pocket 15, substantially parallel to the bottom face of the block. One of the grooves 15' leads to a terminal 18 to which one end of a helical spring switch arm 19 is pivotally connected. The spring switch arm 19 is disposed midway of the switch contacts 16 and 17 and has its helix wholly contained within the bell-shaped pocket 15, when normally retracted, and has a connecting eye or loop 23 which extends through the opening of

the pocket and immediately below the bottom of the block. The grooves 15' are closed by a concave cover plate 20 which is held to the block 14 by screws or like fastening elements.

21. The block 14 is mounted upon the chassis 10 of the automobile or to any suitable stationary part thereof by a bracket or frame 22.

The switch contacts 16 and 17 are made preferably of threaded metallic stock with conventional slotted heads, and have concave surfaces 37 and are adapted to be adjusted by means of a suitable tool (not shown) engaging the slotted head so that the helical surface of the spring switch arm 19 is caused to bear directly against the contact at its concave section, for the purpose hereinafter described. The distances between the switch contacts and switch arm when in neutral position, are predetermined for proper operation of the signal. Due to the relatively large contacting surface thus produced, the frictional wear and its effect in causing delay or retardation of the signal become negligible. If, after considerable wear, the bearing surfaces of the switch contacts become worn so that electrical connection cannot be made rapid enough, a slight turn of the contacts will present a new surface which will last sufficiently long enough until the contacts can be conveniently changed.

A modified form of contact is shown in Figure 5, having four concave contacting surfaces so that if one surface wears, then, by a turn of the contact, with a screw driver, another concave surface will be presented.

As stated above, one end of the helical spring switch arm 19 is pivotally connected to the terminal 18. The other end of the same is pivotally connected, at its connecting eye or loop 23, to the eye or loop 24 provided on one of the free ends of a pair of helically wound extensible spring links 25. The other free end of the links 25 is provided with an eye 26 which is adapted to pass through any one of a plurality of openings 27 provided in an extension arm 28 made of insulating material. The extension arm 28 is fixedly held by a clamp 29 which receives the drag link 12 and which is held on the drag link by a threaded bolt 30 which passes through opposed ears and to which and with which a clamping nut 31 is threaded.

The flexible helical links 25 which are loosely connected at their meeting ends are normally disposed in alignment with the flexible helical switch arm 19, but which are capable of breaking at their joints during movement of the chassis downward with respect to the drag link 12. The spring links 25 and spring switch arm 19 are under a slight tension and accommodate for any normally slight movement of the chassis with respect to the drag link.

Mounted on the connecting eye 23 of the switch arm 19 and disposed exteriorly of the

bottom of the block 14 is a flexible friction shield 32 made preferably of rubber composition. When the switch is connected to the drag link, at which time the spring links 25 and spring switch arm 19 are under slight tension, the friction shield 32 is in removed position from the block 14. During any downward movement of the chassis with respect to the drag link, which may be caused during the passage of the vehicle over an uneven or rough road, the flexible shield 32 would be pulled against the block 14 by the extensible helical spring switch arm 19 and frictionally engage the same to hold the switch arm against swinging movement or flexing, and prevent accidental operation of the switch, at which time the extensible helical links 25 buckle or flex outward without affecting operation of the switch arm 19.

In practice, it will be seen that the switch is normally in the position shown in full lines in the drawing, Figure 4, at which time the drag link 12 is in a position whereby the vehicle is travelling in a straight-away course. Should the operator of the vehicle actuate the steering mechanism to effect either a right or left turn, the drag link 12 will move horizontally causing the switch arm 19, to swing in either direction depending upon the direction of turn and as the switch arm 19 engages either of the contacts 16, 17, a circuit will be closed and which circuit operates a particular direction signal. When the steering mechanism is operated to return to a straight-away direction, the drag link will actuate the switch arm 19, thus returning it to neutral position, where it is held against ordinary movement by tension on the springs. Now, if, while the switch arm 19 is in neutral position, the vehicle passes over a rough road thereby causing the chassis to move intermittently downward with respect to the drag link, then the gripping element 32 will be pulled against the bottom of the block 14 by the retraction of the switch arm 19 and will frictionally engage the same to hold the switch arm in neutral position and the additional pressure will be spent in first retracting the connecting spring links 25 and then in buckling the latter at their pivotal joints.

It will be observed that on some makes of automobiles, the drag link may be closer to the chassis than in others, at which time, it will be necessary to cut down the length of the extension arm 28 to which the lower of the spring links 25 is connected, hence the showing of a plurality of openings in the arm 28.

If the drag link should be exceptionally close to the lower of the spring links 25, then the entire arm 28 is removed and the clamp applied in a position opposite to that shown, and to which the lower end of the spring link is connected. In such case, it will be necessary to provide a layer of insulating material

between the clamp 29 and the drag link 12.

I have thus provided a novel and efficient electric switch for direction signals that will fit any model automobile, can be mounted on the side of the automobile where it is most accessible, kept free from oil and which can be easily removed or inspected without necessitating a person crawling beneath the car in order to reach it, and, furthermore, it will not interfere with the jacking up of the automobile for repair purposes.

Although I have described my improvements with considerable detail and with respect to certain peculiar forms of my invention, I do not desire to be limited to such details, since many changes and modifications may well be made without departing from the spirit and scope of my invention in its broadest aspect.

Having thus described the invention, what is claimed as new and desired to secure by Letters Patent, is:—

1. In an electric switch for mounting on a stationary part, the combination of a casing having an open face, a pair of contacts within said casing, an extensible switch arm pivoted within the casing to swing between the contacts and extending through the open face thereof, a flexible link operatively connecting said switch arm to a movable part under tension, and a friction element mounted on said switch arm and normally held out of engagement with said casing when said switch arm is under tension, said friction element being adapted to frictionally engage with said casing in the event of a slackening of tension on said switch arm to hold the switch arm in an inoperative position.

2. In combination with a stationary part of an automobile and the drag link of the steering mechanism thereof, of a direction signal switch mounted on said stationary part, said switch including a casing open at one face, a pair of spaced contacts in said casing, an extensible switch arm pivoted therebetween, a plurality of loosely connected extensible springs, one of the free ends of said springs being connected to said switch arm, and the other free end of said springs being connected under tension to said drag link, and a friction element mounted on said switch arm and normally held out of engagement with said casing when said switch arm is under tension, said friction element being adapted to frictionally engage with said casing in the event of a slackening of tension on said switch arm and said springs to hold the switch arm in an inoperative position.

3. An electric switch for mounting on a stationary part comprising a casing having an open face therein, a pair of spaced adjustable contacts within said casing, an extensible switch arm pivoted in said casing to swing between said contacts and extending through the open face thereof, a clamp adapt-

ed to be mounted on a movable part, an arm of insulating material held by said clamp, loosely connected tension springs operatively connecting said switch arm and clamp under tension, and a friction element mounted on said switch arm and normally held out of engagement with said casing when said springs are under tension, said friction element being adapted when the switch arm is in neutral position to frictionally engage with said casing to maintain said switch arm in such neutral position in the event of a slackening of tension on said springs.

4. An electric switch comprising an insulating casing open at one face thereof, a pair of spaced adjustable contacts within said casing, an extensible switch arm pivoted in said casing to swing between said contacts and extending through the open face thereof, an attaching clamp for mounting on a movable part, a plurality of loosely connected extensible springs operatively connecting said switch arm and attaching clamp under tension, and a friction element mounted on said switch arm and normally held out of engagement with said casing when said switch arm and connecting springs are under tension, said friction element being adapted when the switch arm is in neutral position to frictionally engage with said casing to maintain said switch arm in such neutral position in the event of a slackening of tension on the springs.

5. An electric switch comprising an insulating casing open at one face, a pair of spaced adjustable contacts within said casing, an extensible switch arm pivoted in said casing to swing between said contacts and extending through the open face thereof, said contacts having surfaces substantially coincident with that of said switch arm when the latter is caused to bear against the same, an attaching clamp for mounting on a movable part, a plurality of loosely connected extensible springs operatively connecting said switch arm and attaching clamp under tension, and a friction element mounted on said switch arm and normally held out of engagement with said casing when said switch arm and connecting springs are under tension, said friction element being adapted when the switch arm is in neutral position to frictionally engage with said casing to maintain said switch arm in such neutral position in the event of a slackening of tension on the springs.

6. An electric switch for direction signals comprising an insulating block provided with a pocket opening onto one face thereof, a pair of spaced switch contacts mounted within the pocket and provided with concave surfaces, a helical spring switch arm pivoted in the pocket to swing between said contacts, and having its helix wholly contained within the pocket and provided with a connecting

eye extending through the opening of the pocket, said contacts being so disposed with relation to said switch arm that when the latter is caused to bear against either contact at its concave surface the contacting surfaces will be coincident, an attaching clamp for mounting on a movable part of the vehicle, a plurality of loosely connected helical springs operatively connecting said switch arm, at its connecting eye, with said attaching clamp under tension, and a friction element mounted on said connecting eye and normally held out of engagement with said block when said switch arm and connecting springs are under tension; said friction element being adapted, when the switch arm is in neutral position to frictionally engage with said block to maintain said switch arm in such neutral position in the event of a slackening of tension on the springs.

7. In an electric switch for mounting on a stationary part, the combination of an insulating block, adjustable contacts mounted in said block, an extensible switch arm pivoted to swing between said contacts, means operatively connecting said switch arm to a movable part under tension, and a gripping element mounted on said switch arm and normally held out of engagement with said block when said switch arm is under tension, said gripping element being adapted when said switch arm is in neutral position to frictionally engage with said block to maintain said switch arm in such neutral position in the event of a slackening of tension on said switch arm.

8. An electric switch comprising an insulating block provided with a pocket opening onto one face thereof, a pair of spaced switch contacts mounted within the pocket and provided with concave surfaces, a helical spring switch arm pivoted within the pocket to swing between said contacts and extending through the opening of the pocket, said contacts being so disposed with relation to said switch arm that when the latter is caused to bear against either contact at its concave surface the contacting surfaces will be coincident, an attaching clamp for mounting on a movable part of a vehicle, a plurality of loosely connected helical springs operatively connecting said switch arm with said attaching clamp under tension, and a friction element mounted on said switch arm and normally held out of engagement with said block when said switch arm and connecting springs are under tension, said friction element being adapted when the switch arm is in neutral position to frictionally engage with said block to maintain said switch arm in such neutral position in the event of a slackening of tension on the springs.

9. An electric switch for direction signals comprising a bracket adapted to be secured to a stationary part of a motor vehicle, an in-

sulcating block carried by said bracket, said block having a concave side surface and a pocket extending to the bottom of said block, a pair of paralleled spaced threaded switch contacts mounted within the pocket and provided with concave surfaces, a helical extensible spring switch arm pivoted in the pocket and adapted to swing between said contacts and having its helix wholly contained within said pocket, when retracted, said switch arm being provided with a connecting eye extending through the opening of the pocket, said contacts being so disposed with relation to said switch arm that when the latter is caused to bear against either contact at its concave surface to complete an electrical circuit, the contacting surfaces will be substantially coincident; an attaching clamp for mounting on a movable part of a vehicle, a pair of loosely connected helical extensible springs operatively connecting said switch arm, at its connecting eye, with said attaching clamp under tension, and a friction element mounted on said connecting eye and normally held out of engagement with the bottom of said block when said switch arm and connecting springs are under tension, said friction element being adapted, when the switch arm is in neutral position, to frictionally engage with said block to maintain said switch arm in such neutral position in the event of a slackening of tension on the springs.

10. An electric switch for direction signals comprising a bracket having means for attaching the same to a stationary part of a motor vehicle, a substantially rectangular insulating block carried by said bracket, said block having a concave side surface provided with a series of grooves for receiving conductors and a substantially bell-shaped pocket extending to the bottom of said block, a pair of paralleled spaced switch contacts mounted within the pocket and parallel to the bottom of said block, said contacts being threaded to adapt the same for mounting and provided with concave surfaces, a helically wound extensible spring switch arm pivoted in the pocket and adapted to swing between said contacts, and having its helix wholly contained within the pocket when retracted, and having a connecting eye extending through the opening of the pocket, said switch contacts being so disposed with relation to said switch arm that when the latter is caused to bear against either of said switch contacts, at their concave surfaces, to complete an electrical circuit, the contacting surfaces will be substantially coincident; an attaching clamp for mounting on a movable part of the vehicle, a pair of loosely connected helically wound extensible springs operatively connecting said switch arm, at its connecting eye, with said attaching clamp under tension, and a friction element mounted on the connecting eye of said switch arm

and normally held out of engagement with the bottom of said block when said switch arm and connecting springs are under tension, said friction element being adapted, when the said switch arm is in neutral position, to frictionally engage with said block to maintain said switch arm in such neutral position in the event of a slackening of tension on the springs.

- 10 11. The combination with a stationary part of a motor vehicle and the drag link of the steering mechanism thereof, of a directional signal switch, a bracket carrying said switch and mounted on said stationary part, a block in the form of a casing included in said switch and being recessed in one side, a pair of spaced contacts disposed in said recess, a switch arm in the form of a coil spring and being pivotally secured in said block for movement in the recess between said contacts for engagement with any one thereof, a clamp mounted on said drag link, an extension arm projecting from said clamp, loosely connected coil springs having one of their free ends adjustably secured with respect to the extension arm and their opposite free end connected to the switch arm, with the loosely connected coil springs and the switch arm normally under tension, and a gripping member mounted on said switch arm for holding the latter in a position between the spaced contacts in the event of a slackening of tension on the switch arm.

12. A switch for directional signals comprising a block having a substantially V-shape recess formed therein, a bracket secured to said block for fixing the switch to a supporting means, a pair of spaced contacts arranged within said recess and disposed adjacent the open end thereof, a terminal arranged in said recess and disposed adjacent the closed end thereof, said block being provided with grooves for receiving wires for connecting with the terminal and spaced to swing between said spaced contacts and extending through the open end of the recess, said coil spring being normally under tension, a flexible rubber shield mounted on the coil spring for holding the coil spring in a position between the spaced contacts in the event of a slackening of tension on said switch arm, and means for closing the grooves.

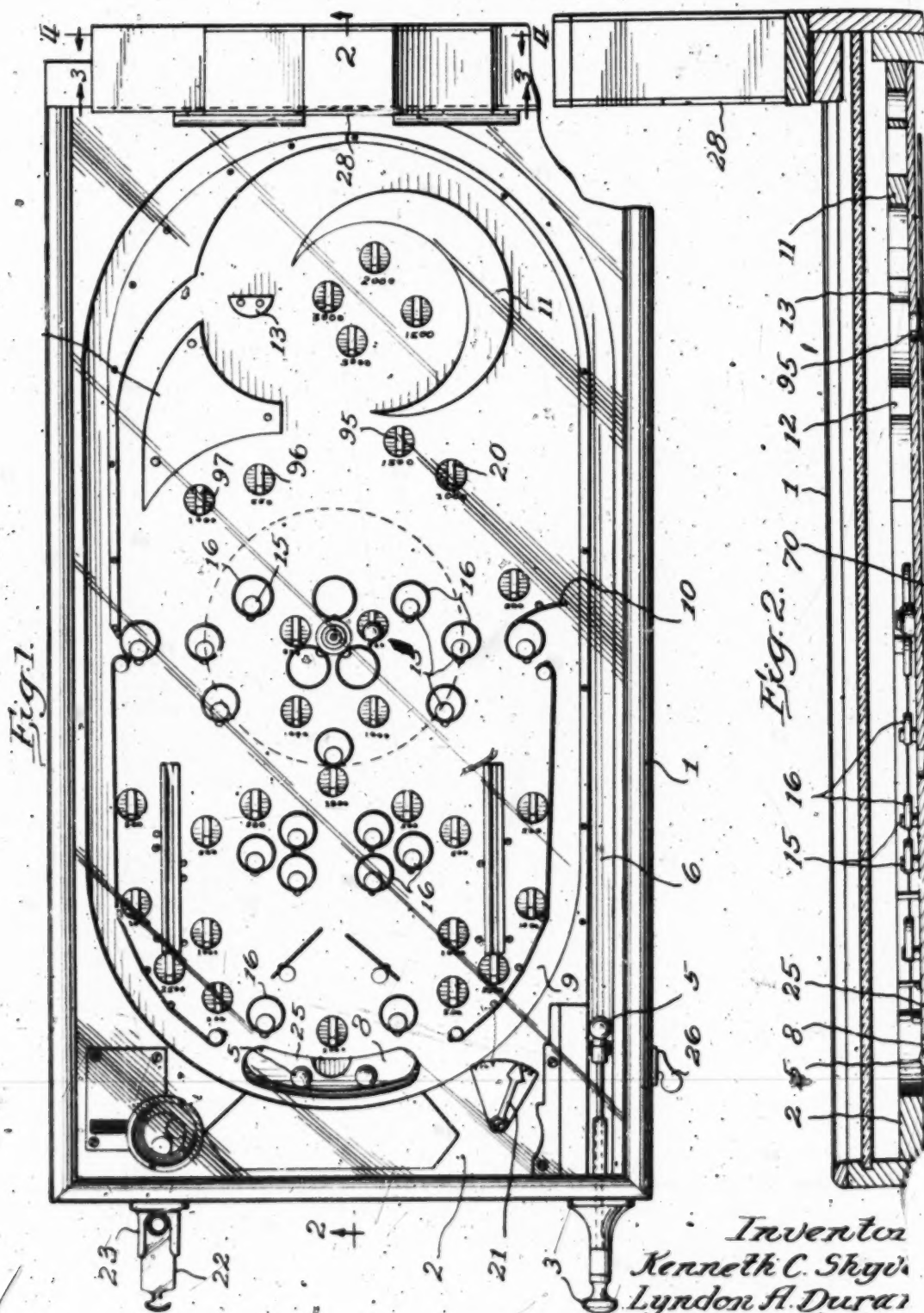
13. In combination with a stationary part of an automobile and the drag link of the steering mechanism thereof, of a direction signal switch mounted on said stationary part, said switch comprising a casing, a pair of spaced contacts in said casing, an expansible coil spring forming a switch arm pivoted therebetween, a plurality of loosely connected expansible coil springs, one of the free ends of said springs being connected to said switch arm, and the other free end of said springs being connected under tension to said drag link.

14. In an electric switch for mounting on a stationary part of an automobile and for cooperation with the drag link thereof, the combination of a casing having an open face, a pair of spaced contacts within said casing, an expansible coil spring forming a switch arm pivoted within said casing to swing between said contacts and extending through the open face of said casing, and a plurality of loosely coupled expansible coil springs, one free end of the plurality being loosely connected to the extending end of said switch arm and the other free end of the plurality being connected to said drag link, whereby the said springs are held under tension, the said coupling permitting the springs to move relatively with respect to each other.

In testimony whereof I have affixed my signature.

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Sept. 8, 1936.

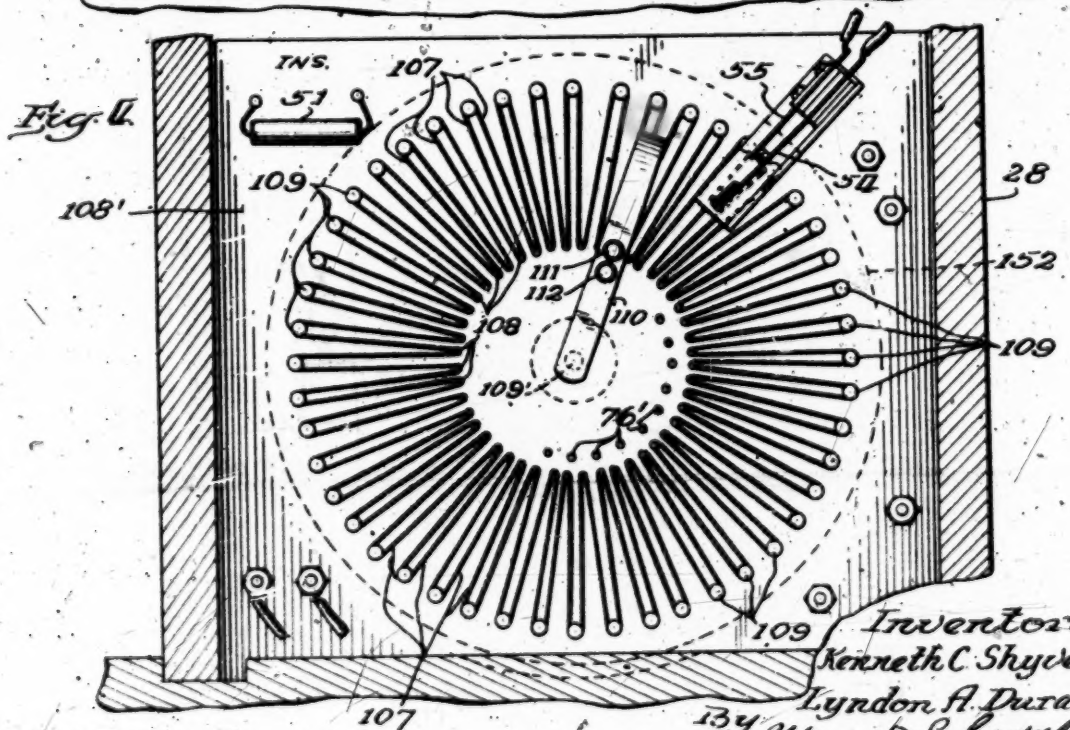
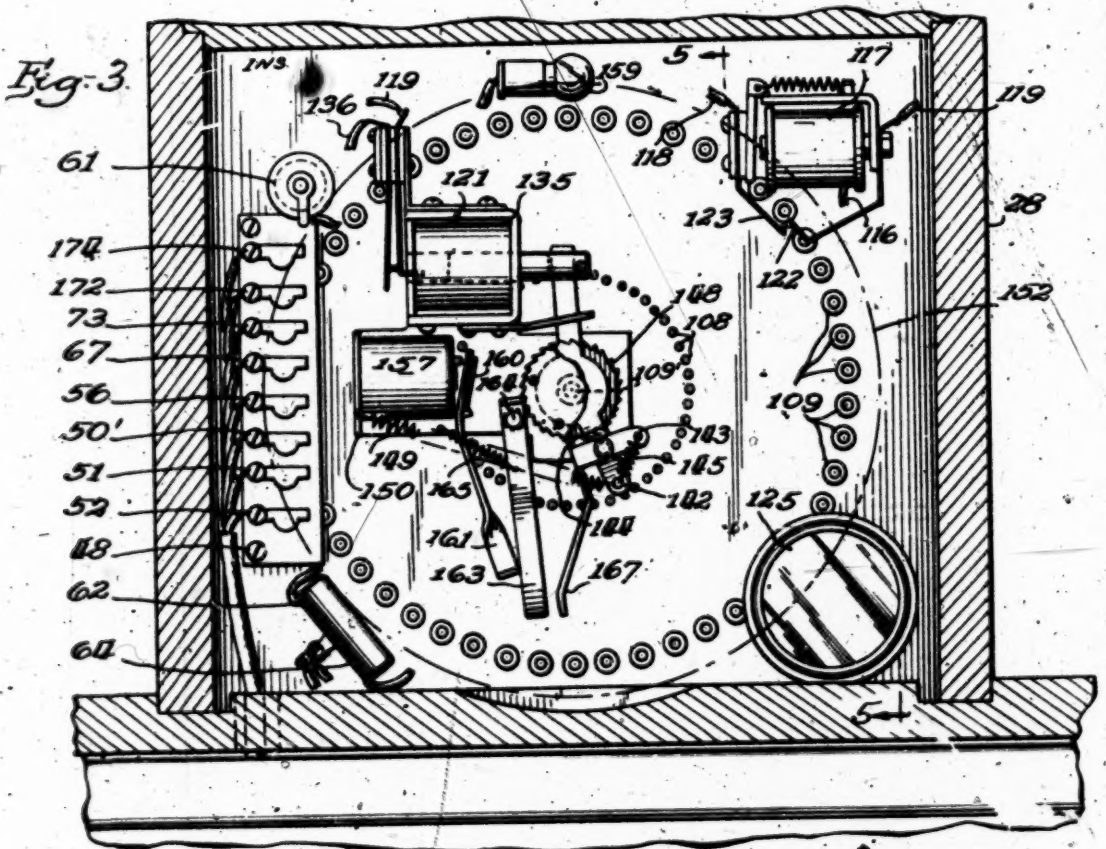
K. C. SHYVERS ET AL

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GAME

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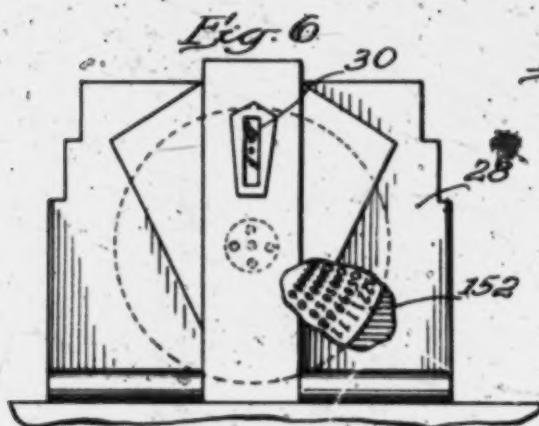
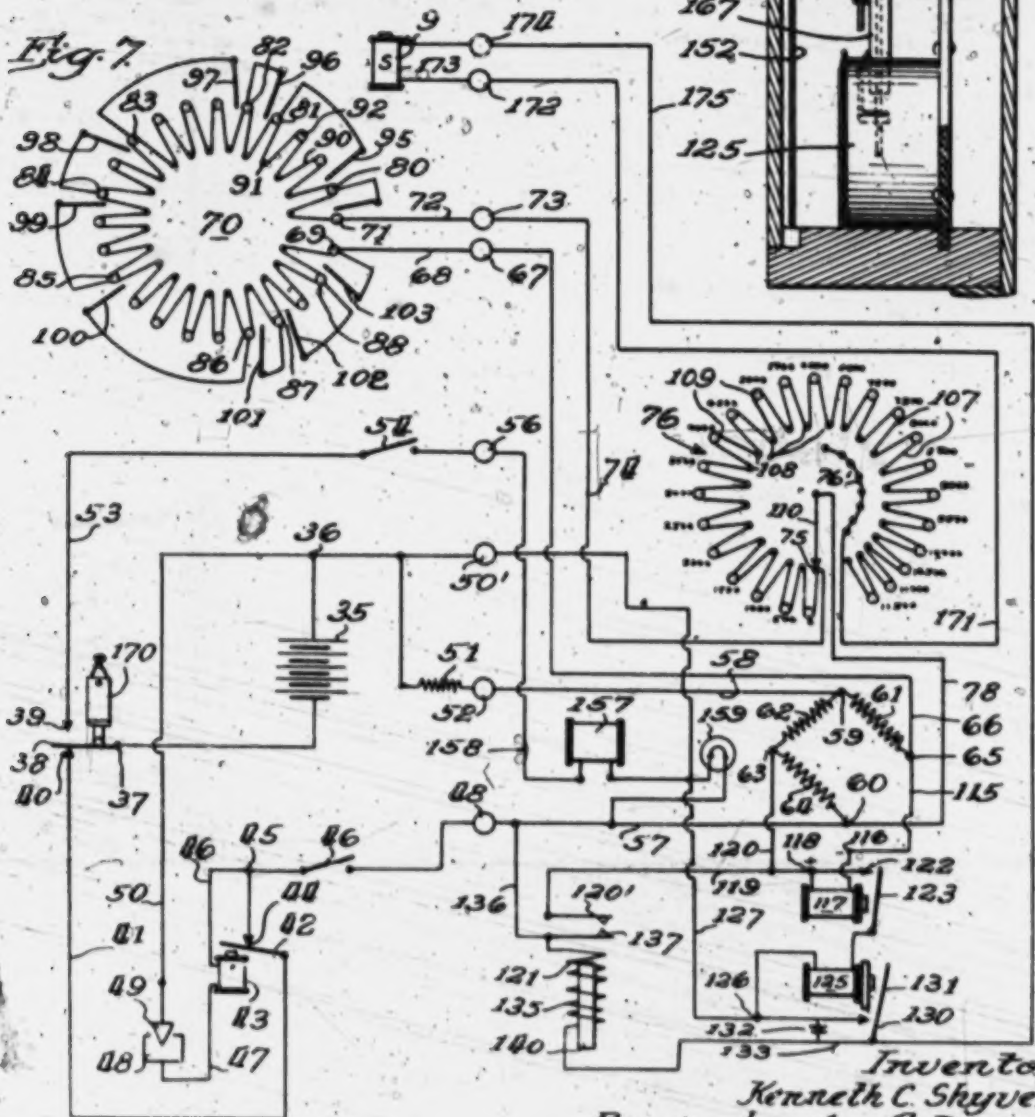
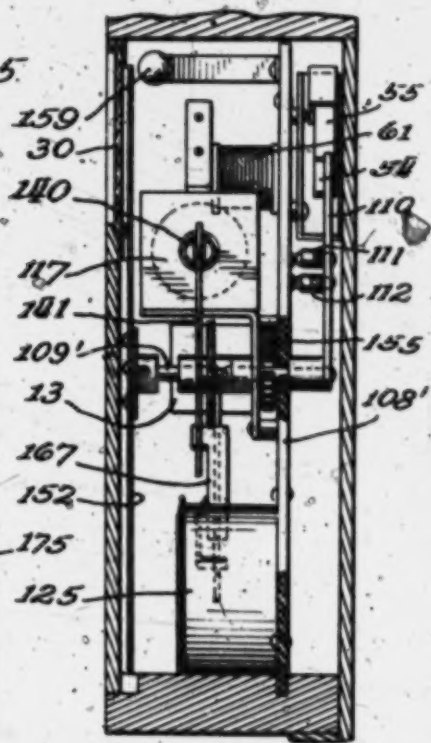


Fig. 5



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UNITED STATES PATENT OFFICE

2,053,379

GAME

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Application February 10, 1936, Serial No. 63,056

14 Claims. (Cl. 273-121)

This invention relates to a pin game of the type wherein a plurality of balls are impelled to various playing positions and to an electric totalizing means for indicating the number of points scored any time during the game. Games of this character are located in various public places and must be capable of operation with a minimum of servicing.

An object of this invention is to devise a game of this character wherein a totalizing means is provided, which is cheap, effective and operates quickly to indicate the number of points scored at any time during the game.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists in certain novel features of construction, arrangement and combination of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

For the purpose of facilitating an understanding of our invention, we have illustrated in the accompanying drawings, a preferred embodiment thereof, from an inspection of which when considered in connection with the following description, our invention, its mode of construction, assembly and operation, and many of its advantages should be readily understood and appreciated. Referring to the drawings in which the same characters of reference are employed to indicate corresponding or similar parts through the several figures of the drawings:

Figure 1 is a top view of a complete game;
Fig. 2 is a section along line 2-2 of Fig. 1;
Fig. 3 is a section along line 3-3 of Fig. 1;
Fig. 4 is a section along line 4-4 of Fig. 1;
Fig. 5 is a section along line 5-5 of Fig. 3;
Fig. 6 is a detail of the indicating means; and
Fig. 7 is a circuit diagram of the totalizing means.

Referring to Figs. 1 and 2, the game comprises a frame 1 of wood or metal. Supported by the frame is a panel 12 of wood, upon which may be located the various paths and traps for the balls. A plunger 3 suitably journaled in the frame is adapted to be pulled back in the well known fashion and propel a ball 5 along chute 6, which extends to the rear of the panel and to the other side thereof. The ball 5 is adapted to pass a trap 8, if it has sufficient momentum, and up an inner

chute 9 beyond a spring gate 10 and thence into the playing field.

The field may have suitably shaped blocks 11, 12 and 13 for guiding the ball. There may also be provided a plurality of posts 14 carrying 5 spring rings 15 offset therefrom and adapted to impart indeterminate impulses to the ball in its travels. A plurality of holes 16 into which each ball may drop is provided, each hole having a predetermined scoring value. Inasmuch as the 10 arrangement of posts, guide blocks and holes may be changed to suit the taste of players and since it forms no part of the present invention, it will not be described.

The entire machine is provided with a level indicator 21 and a coin chute 22. This coin chute is provided with a circular cut-out 23, into which any suitable coin may be disposed, after which lever 22 is pressed inwardly. Upon the pressing in of lever 22, a board 25 immediately below play- 20 ing panel 2 is moved in its own plane to uncover the various holes 16 and permit the balls to drop through to the bottom of the cabinet. A suitable pick-up device, operated by a lever 26 of well known construction, is adapted to elevate one ball 25 at a time into the chute 6.

At the rear of the cabinet a vertically disposed panel 28 is disposed into which the totalizing mechanism is adapted to be mounted. The scoring total may be read through a small window 30 (Fig. 6).

The totalizing mechanism proper, in general, comprises a pair of equal resistances having corresponding predetermined taps permitting the shutting out or insertion of corresponding and 35 predetermined resistance values. The total value of the two resistances in series tends to remain constant. In the event that any balls operate to change the value of one of the resistances, automatic mechanism is provided tend- 40 ing to change the value of the other resistance to an equal amount, but in the reverse sense. These two resistances are adapted to form one arm of a Wheatstone bridge, the other three arms of which have fixed values. The balls, 45 when played, are adapted to disturb one of the resistance values causing the bridge to become unbalanced. By suitable step up mechanism the other resistance carrying the scoring values is suitably operated upon to automatically balance 50 the bridge.

Electrically controlled means are provided to reset the mechanism to "zero" upon the initiation of a play and to render the mechanism inoperative in the event that the game apparatus

is not level. Additional means are provided whereby at certain predetermined scoring values a return coin chute may be operated as a reward for playing skill.

- Referring to Figs. 3 to 7, inclusive, a battery 35, or any suitable source of power, has one terminal connected to a junction point 36 and the other terminal connected to a terminal 37 of a single-pole, double-throw reset switch 38. The switch 38 is adapted to contact the point 36 during the resetting operation and contact point 40 during the playing operation. The point 40 is connected by a line 41 to movable contact 42 of a level control relay 43. The movable contact 42 normally touches fixed contact 44 which is connected to a junction point 45. This junction point 45 is connected by a line 46 through the winding of the relay 43 to a line 47 and thence to a cup member 48.
- A freely swinging contact 49 is adapted to be clear of the cup member 48 if the cabinet is level, so that no circuit through this switch is made. A movable contact 49 is connected by a line 50 back to the junction 36. It is clear that if the cabinet is not level, a circuit through 49 and 48 will be established, energizing the winding 43 of the relay and causing the movable contacts 42 to break away from the contact 44, thus breaking the main circuit and also circuit to tilt device.
- The junction point 45 is connected through a clock control switch 48 to a terminal 46. The junction point 36 is connected to a terminal 50 and also through a voltage reducing resistance 51 to a terminal 52. The reset contact 38 is connected by a line 53 to a terminal 54.
- The contacts 48 and 52 are connected by lines 57 and 58, respectively, to the opposite points 59 and 60 of a bridge for energizing the same.
- The junction 59 has resistances 61 and 62 connected thereto. The resistance 62 is connected to a junction 63 and between this point and 60, a resistance 64 is provided. The resistances 61, 62 and 64 are invariable values and between the junction 60 and junction 63 there is adapted to be connected a pair of oppositely variable resistances. From the junction point 63 a line 65 is provided going to a terminal 67. The terminal 67 is connected by a jumper 68 to terminal 69 of a resistance generally designated as 70. The other terminal 71 of this resistance is connected by a jumper 72 to a terminal 73, thence by a line 74 to a terminal 75 of a resistance generally designated as 76. A wiper 77 forms the other terminal of this resistance as far as current conduction is concerned and is connected by a line 78 to the junction 60 of the bridge.
- Referring to the resistance 70, this resistance is made up of suitable resistance units having a plurality of contact points 80 to 88, inclusive. Between these contact points predetermined values of resistances may be disposed in any suitable manner. As shown here, the resistance wire 89 is wound spiral around an inner series of posts 91 and an outer series of posts 92. A plurality of switch arms 93 to 103, inclusive, may be provided for engagement with the contacts 80 to 88, respectively, and the terminal at the other end of the corresponding resistance section, a short circuiting conductor 104 may be provided, so that upon the closure of any switch with its corresponding contact, a predetermined portion of the entire resistance is cut out. Switches 95 to 103, inclusive, are mounted on the lower panel 28, and in the normal playing position are

adapted to be in holes 28 so that when a ball drops in, the switch will be closed.

The resistance 76, whose total value may be equal to that of resistance 70, is constructed so that its resistance wire 107 is threaded back and forth between an inner series of posts 108 and an outer series of posts 109. This resistance wire is carried on a board 108' through the center of which a shaft 109' is rotatively mounted.

The shaft 109' carries an arm 110 balance with a pair of wipers 111 and 112. The wiper 111 operates with the inner series of posts 108 which are preferably of metal and have suitable ball tops. As the balls close the various switches in the resistance 70 and vary its value in a predetermined fashion, it is evident, therefore, that the arm 110 with the wiper 111 must be moved to add a predetermined amount of resistance from the resistance 76 to keep the bridge balanced.

Assuming that the system is unbalanced because of the operation of one or more switches in the resistance 70, it is clear that a difference of potential between the points 63 and 65 of the bridge will be set up. In order to take advantage of this difference of potential, the point 65 is connected by a line 115 to the terminal 116 of a sensitive relay 117. The other terminal 118 of this relay is connected to a line 119, to which bridge point 63 is connected by a wire 120 and the line 119 is connected to the fixed contact 120' of a step up solenoid 121. The line 119 also goes to the fixed contact 122 of the relay 117. The movable contact 123 of this relay is connected to the winding of a time delay relay 125, the other terminal of the winding being connected to point 124. The point 124 is connected back by a line 127 to terminal 50'. The fixed contact 130 of the relay 125 is connected to the junction 126 and co-operates with the movable contact 131. A condenser 132 is connected across these contacts to suppress sparking to protect the relay contacts. The fixed contact 131 is connected to a line 133 which goes through the winding 135 of the solenoid 121 and thence by a wire 136 to the line 57. A movable contact 137 is connected to the line 136.

Upon the unbalancing of the bridge and the existence of a difference of potential between the points 63 and 65, current will flow through the line 115 and the winding of the relay 117, through the line 120 to the point 63. This will cause the relay contacts 122 and 123 to close which will energize the time delay relay 125. With the relay 125 energized, the contacts 130 and 131 will close to establish a circuit from the point 36 above the battery 35 through the junction 59', line 127, contacts 130 and 131, line 133, solenoid winding 135, line 136 to the junction 48 and thence through the switch 48, point 40, contact points 42 and 44, line 41, contact points 40 and 39, thence back to the battery. The solenoid 121 will thereupon be actuated and close the contacts 120' and 137. This completes a circuit from the line 136 to the line 119, bridge point 63, resistance 64, bridge point 60, line 57, line 136 and back to solenoid contacts 120' and 137. In effect, the closing of these two contacts 120' and 137 shunts out resistance 64 of the bridge and unbalances it in the reverse sense as compared to the condition of the bridge during its automatic balancing action. This results in a reverse difference of potential between points 63 and 65 of the bridge, reversing the flow of current through the first relay 117. This reverse current rapidly opens the relay contacts and overcomes any tendency for contact sticking.

which might otherwise occur. The opening of the relay 117 will in its turn result in opening the relay 125, which, because of its slow operation, is adapted to permit the step up solenoid 121 to go through with its step up operation more positively. The mechanical operation whereby the step up solenoid 121 changes the value of the resistance 76 to balance the bridge, will now be described.

The step up solenoid 121 is provided with a core 140 which is adapted to be sucked into the solenoid upon energization thereof. The free end of the core 140 is pivotally secured to a lever 141 pivotally secured to the shaft 109'. Beyond the shaft 109' the lever 141 has a portion 142 upon which is pivotally mounted a lever 143 carrying a ratchet dog 144. A spring 145 between the members 142 and 143 presses dog 144 against the teeth of a ratchet 146 rigidly secured to shaft 109'. A spring 149 secured between the member 142 and a rigid plate 150 tends to keep the core 140 of the solenoid in its projected position. Upon the energization of the relay winding 135, the core 140 is sucked into the relay winding and moves the lever 141 anti-clockwise, as seen in Fig. 3. The dog 144 rides over the teeth of the ratchet 146. The core 140 which opens the contacts 120' and 121 in its lowermost position and de-energizes the winding is thereupon pulled out by the action of a spring 149, which advances the ratchet 146 a tooth in a clockwise direction. This serves to move the arm 110 with its wiper 111 from one contact post 108 to another one. Assuming that the bridge still remains unbalanced, another step up cycle will occur until the resistance relationship between 70 and 76 is such that they both add up to the predetermined amount necessary to balance the bridge. The shaft 109' in its turning movement rotates a scale 152 carrying suitable numbers thereon and in the balanced condition of the bridge is adapted to show a suitable indication through the window 30.

In order to reset the mechanism back to "zero" position in preparation for a playing cycle, means are provided for releasing the ratchet to permit the scale to assume its starting position. As the totalizing means operates to turn the scale from a lower to a higher reading, the shaft 109' tends to wind up a spring 155.

In order to reset the mechanism, a reset coil 157 is provided connected by a line 158 to the terminal 56. The coil 157 is mounted on the plate 150 and has pivoted thereto an armature 160. This armature is provided with a long lever portion 161 adapted to contact against a dog 163 pivoted at 164 and engaging ratchet wheel 146. A spring 155 between the dog 163 and the base plate 150 tends to keep the dog in engagement with the ratchet. During the normal step up operation of the step up coil 121, the ratchet 146 is adapted to turn in a clockwise direction and the dog 163 merely slips over the teeth of the ratchet. During the inward movement of the core 140 of the step up magnet, when the step up ratchet 146 is slipping backward to engage a new tooth, the dog 163 prevents the ratchet 146 from being driven backwards by the spring 155. The dog 164 of the step up ratchet is provided with a long ear 167. When the release coil 157 is energized, the armature 160 is attracted causing the lever 161 to swing the dog 163 clear of the ratchet and at the same time by pressing against the ear 167 causes the step up ratchet 143 to clear the ratchet teeth. There being no restraint on ratchet 146, the spring 155 reverses the shaft 109' until the "zero" position is reached. The

reset coil 157 is energized by the starting switch 38 being raised upwardly to close with the contact 39. By means of a dashpot 170 on the switch 38, 38 is kept in contact with the point 39 long enough to permit the mechanism to reset back to "zero" and therefrom the switch 38 is dropped to close against the contact 40. When the shaft 109' is driven back to the "zero" position, the arm 110 carried thereby is adapted to open up the contacts 54 and 55 at the "zero" position of the indicating means. This is accomplished by the arm 110 striking an extension of the contact 54 and serves to open up the reset circuit as soon as resetting is accomplished and thus save drain on the battery 35 in the event that the dashpot on the switch 38 operates too slowly.

It may be desirable to provide a coin return or suitable indicating means in the event that certain high scoring values are obtained. For this purpose, the wiper 112 on the arm 110 is adapted to co-operate with a series of contacts 76' inwardly spaced from the inward series of contacts 108. These contacts 76' may be connected in any suitable manner and, as shown here, are all connected to a line 171, leading to a terminal 172 to magnet 173 and back again through a terminal 174 and line 175 to the line 133. In the event that the arm 110 travels far enough to engage any one of the contacts 76', a circuit from the bridge point 60 through the line 78, arm 110, wiper 112 and thence through the various lines down to the line 133, is established. This circuit will be energized from the battery 35 only when delay relay 125 closes the contacts 130 and 131.

In order to illuminate the dial or member 152 upon which the score values are marked, there is provided a light 159 disposed directly in the rear of the opening 30, which light is connected in the main battery circuit.

It is believed that our invention, its mode of construction and assembly, and many of its advantages should be readily understood from the foregoing without further description, and it should also be manifest that while a preferred embodiment of the invention has been shown and described for illustrative purposes, the structural details are nevertheless capable of wide variation within the purview of our invention as defined in the appended claims.

What we claim and desire to secure by Letters Patent of the United States is:

1. An electrical means for indicating the position of a body at a remote distance comprising a bridge having three fixed resistances for the three arms thereof and a pair of equal resistances in series as a fourth arm, said pair of resistances being remote from each other and being adapted to have a constant combined resistance, means on one of said resistances for varying the value thereof in accordance with the position of one or more bodies, means co-operating with one of said resistances tending to change the value of said other resistances by an equal amount and in the reverse sense to said first resistance to maintain said bridge in balance, said means being energized by a difference of potential across said bridge when unbalanced and comprising a step up relay, a step-by-step mechanism co-operating with said other resistance to vary its value, means whereby said step up relay in its movement stores energy in said step up mechanism and means whereby said step-by-step mechanism varies upon the de-energization of said step-up relay.

2. An indicating means, comprising a bridge

having three fixed resistances as the arms thereof, a first and second resistance in series with each other as the fourth arm, means for energizing said bridge from two opposite points, means for varying the value of said first resistance to unbalance said bridge thereby causing a difference of potential to automatically vary said second resistance to bring the bridge into balance, said last named means comprising a relay for utilizing said difference of potential in said bridge, a step up relay controlled by said first relay, a wiper on said second resistance and adapted to contact therewith, a dog and ratchet mechanism co-operating with said wiper to impart step-by-step movement thereto, means whereby said step up relay operates said dog and ratchet to advance said wiper for a small unitary value of resistance, means controlled by said step up relay to reverse said bridge unbalance whereby said control relay is sharply released to begin another step-up cycle and an indicator carried by said wiper calibrated to indicate the condition of said first resistance.

3. The system of claim 2, wherein said wiper is adapted to progress forward in one direction only against a spring, and means for freeing said ratchet of its dog for returning said wiper to a starting position.

4. An indicating system for showing the position of a body at a distance remote from the indicating means, comprising a bridge having three fixed resistances as the arms thereof and a fourth arm comprising two resistances in series, means for energizing said bridge across two points, and means for utilizing any potential difference across the other two points of said bridge, one of said resistances being remote from the other, means for varying the value of said one resistance in accordance with the body positions to be measured, thereby unbalancing said bridge and means responsive to the difference of potential across said bridge due to its unbalanced position for varying the other resistance an equal value in a reverse sense, said means comprising a wiper playing over said resistance, a shaft coupled to said wiper and carrying an indicating means, a ratchet mechanism coupled to said shaft and tending to turn said shaft in one direction only, a spring coupled to said shaft and wound up by said ratchet mechanism as said shaft is turned thereby, relay means responsive to the unbalanced condition in said bridge for operating said ratchet mechanism step by step until said bridge is automatically balanced, an independent means for rendering said ratchet advance inoperative whereby said spring returns said shaft to a "zero" position.

5. The system of claim 4, wherein said relay means for operating said ratchet comprises a pair of successive relays, one of said relays being directly responsive to the unbalanced condition of said bridge, the other relay being responsive to said first relay, said other relay in its energized condition being adapted to unbalance said bridge in the reverse direction to cause a quick release on said first relay.

6. The system of claim 4, wherein said ratchet operating means comprises a magnet and a spring system so that when said magnet is energized, the ratchet dog slips the ratchet and a spring advances said ratchet.

7. The system of claim 4, wherein said ratchet advancing means comprises a spring-pressed dog, a magnet for operating on said dog to advance said ratchet, an additional spring-pressed

dog on said ratchet, an additional magnet for releasing both dogs from said ratchet and a spring wound by said ratchet during its advancing position for returning said ratchet to a "zero" position.

8. A totalizer operatively associated with a game board having a plurality of switches adapted to be closed by projectiles projected onto said game board, comprising a resistance connected to said switches and having its effective value varied thereby a second resistance in series with said first resistance, said two resistances in series forming one arm of a bridge, three other resistances forming the three additional bridge arms, means for impressing a potential difference across one pair of opposite bridge points, means connected across the other pair of opposite bridge points for responding to a difference of potential as a result of bridge unbalance, and means controlled by said last mentioned means for varying the value of said second resistance to balance said bridge, said means comprising a wiper playing over said second resistance and movable in steps, a relay responsive to a condition of bridge unbalance for moving said wiper one step at a time, said relay being controlled by said bridge only at the beginning of each operating cycle, and indicating means carried by said wiper to correspond with the switches in said first resistance changed by said operator.

9. The totalizer of claim 8, wherein a relay is connected across said other opposite bridge points and responsive to a condition of unbalance, and a slow acting relay system controlled by said first relay for actuating said wiper, said slow acting relay system, when energized, being adapted to throw out said first relay in preparation for a new operating cycle.

10. The totalizer of claim 8, wherein said wiper operates against the spring, a ratchet system controlling said wiper, a step-by-step relay system for advancing said ratchet in one direction in response to the potential difference across said bridge when in unbalanced condition, a release magnet and means controlled by said release magnet when energized for releasing said ratchet to permit said spring to return said wiper to a starting position.

11. The totalizer of claim 8, wherein said wiper rides over a series of contacts corresponding to predetermined wiper conditions and an unlocking circuit controlled by said contacts whereby a predetermined wiper conditions said unlocking circuit operates giving special indications for predetermined high scoring values.

12. A score indicating means operatively associated with a game board having a plurality of switches adapted to be closed by balls projected onto and travelling over said game board, said indicating means including a bridge having three fixed resistances as the arms thereof and a fourth arm comprising two resistances in series, a plurality of switches disposed one at each of said openings and adapted to be closed by the disposition of a ball within said opening, said switches being connected to one of said last mentioned resistances and arranged so as to have its effective value varied thereby, means for impressing a potential difference across one pair of opposite bridge points, means connected across the opposite pair of bridge points for responding to a difference of potential as a result of bridge unbalance, and means including the indicating means controlled by said last mentioned

means for actuating said indicating means to move the same to correspond with the change in value of said first resistance caused by the disposition of the balls in the openings on the playing surface.

13. A totalizer operatively associated with a game board having a plurality of switches adapted to be closed by balls projected onto said game board, including a resistance, all of said switches being connected to said resistance, which resistance has its effective value varied by the closing of said switches, a second resistance in series with said first resistance, said two resistances in series forming one arm of a bridge, three other resistances forming the three additional bridge arms, means for impressing a potential difference across one pair of opposite bridge points, means connected across the other pair of opposite bridge points for responding to a difference of potential as a result of bridge unbalance, means controlled

by said last mentioned means for varying the value of said second resistance to balance said bridge, and indicating means associated with said last mentioned means calibrated to indicate the condition of said first resistance.

14. A totalizer operatively associated with a game board having a plurality of electrical switches adapted to be closed by balls projected onto said game board, said totalizer including an electrical resistance connected with said switches, 10 which resistance has its effective value varied by the closing of said switches, whereby a predetermined amount of resistance is cut out upon the moving of said switches to closed positions, and means responsive to the action of the 15 cutting out of the resistance for actuating the totalizer.

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May 24, 1938.

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GAME APPARATUS

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Fig. 1.

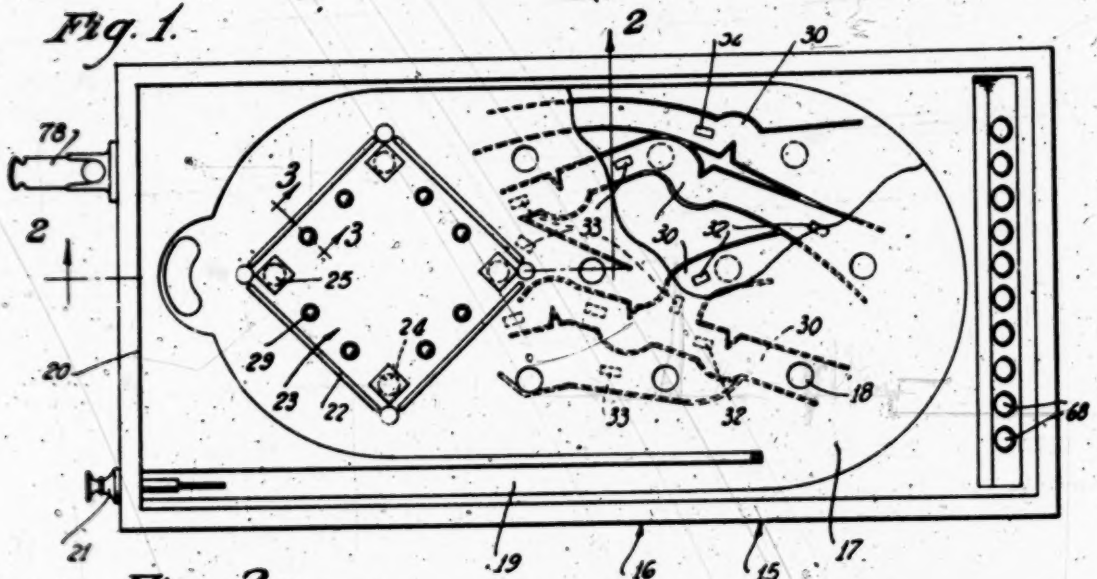


Fig. 2.

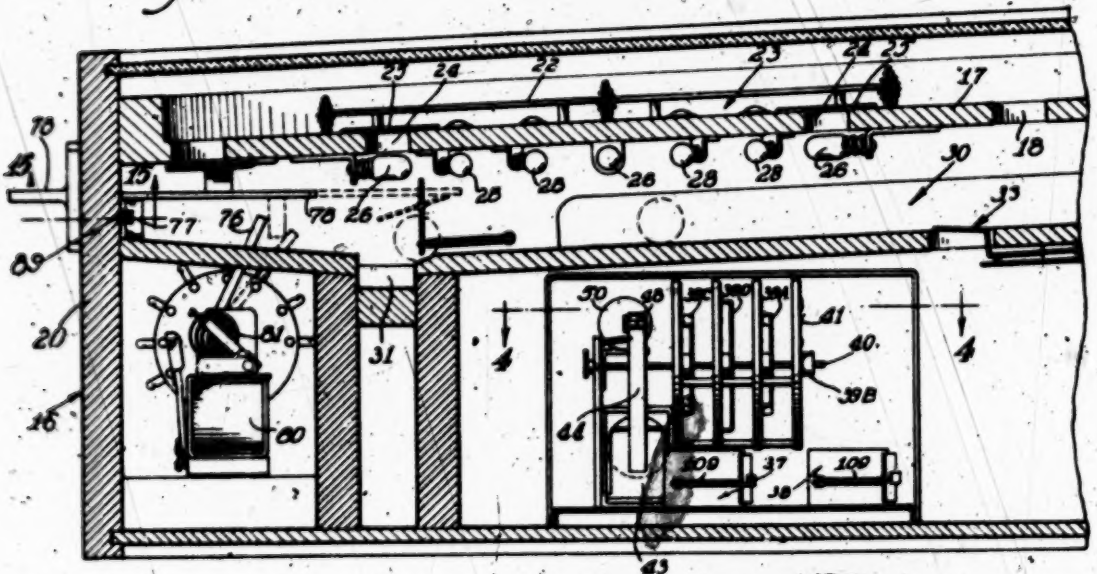


Fig. 3.

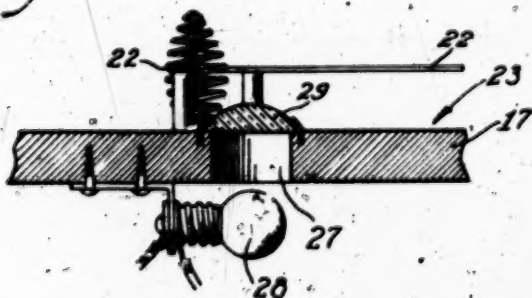
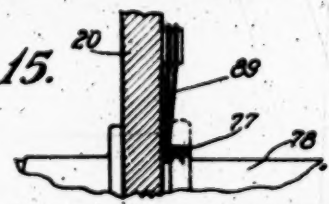


Fig. 15.



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Fig. 4.

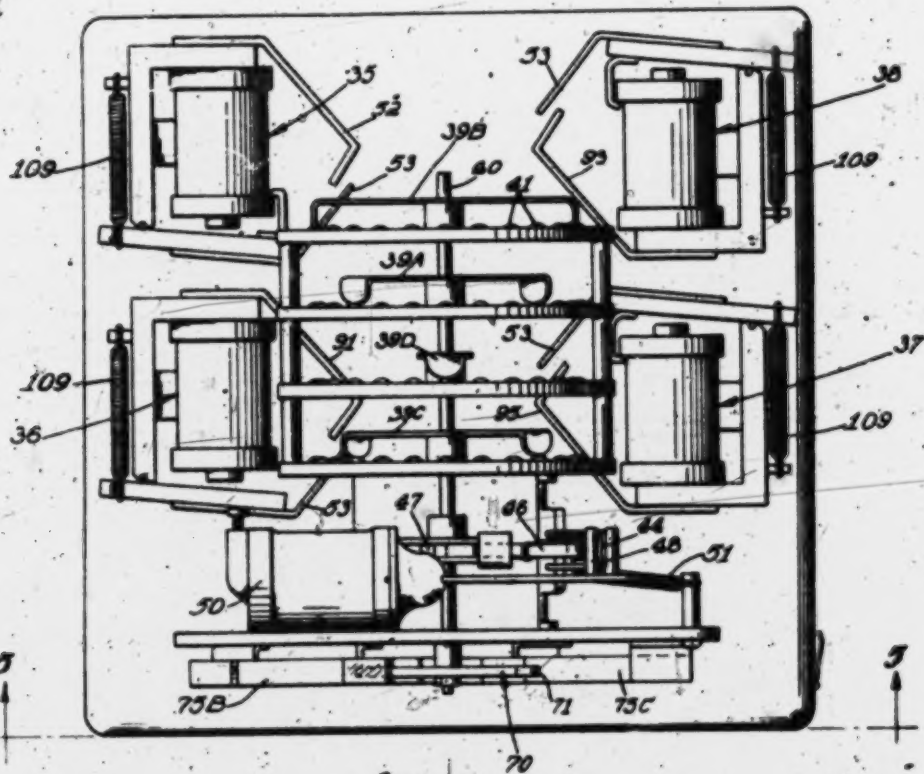
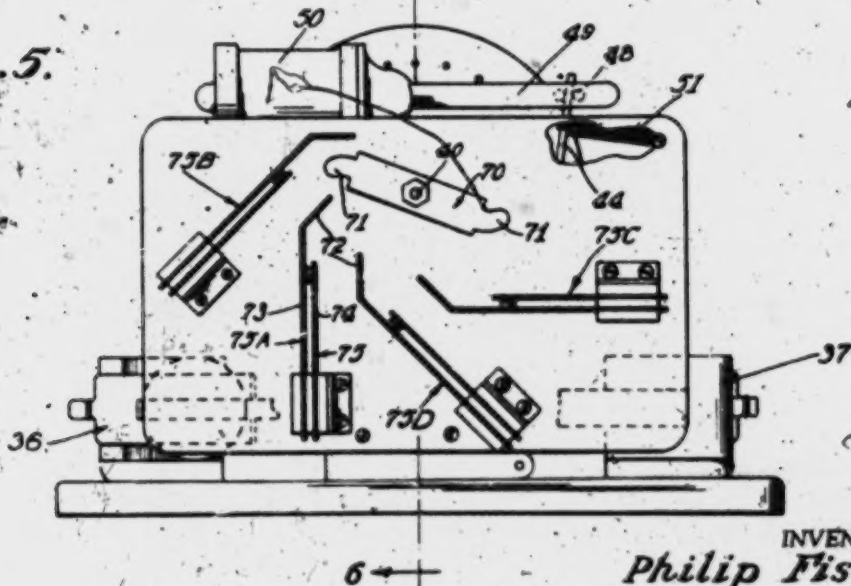


Fig. 5.



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Fig. 6.

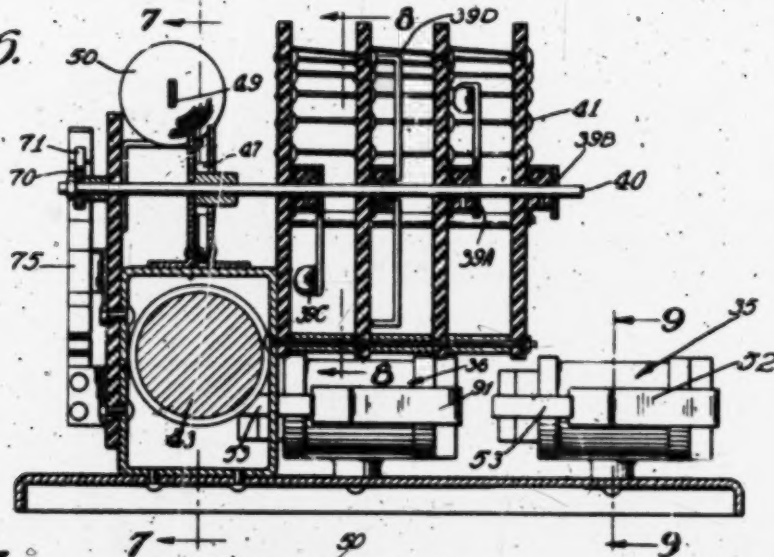


Fig. 7.

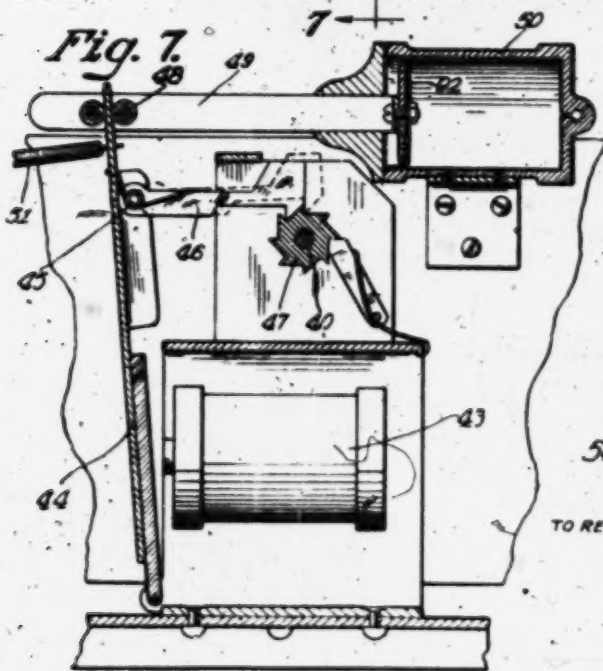


Fig. 8.

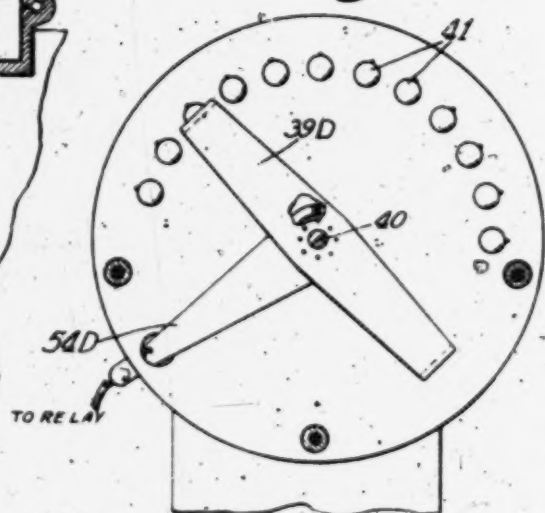
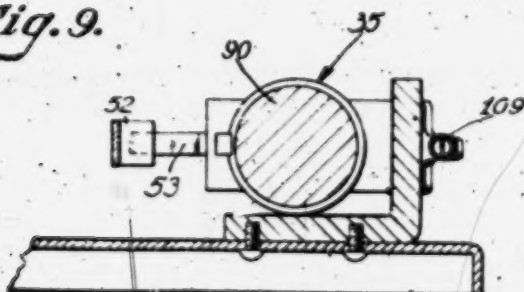


Fig. 9.



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May 24, 1938.

P. FISCHER

2,118,037

GAME APPARATUS

Filed June 24, 1935

5 Sheets-Sheet 4

Fig. 10.

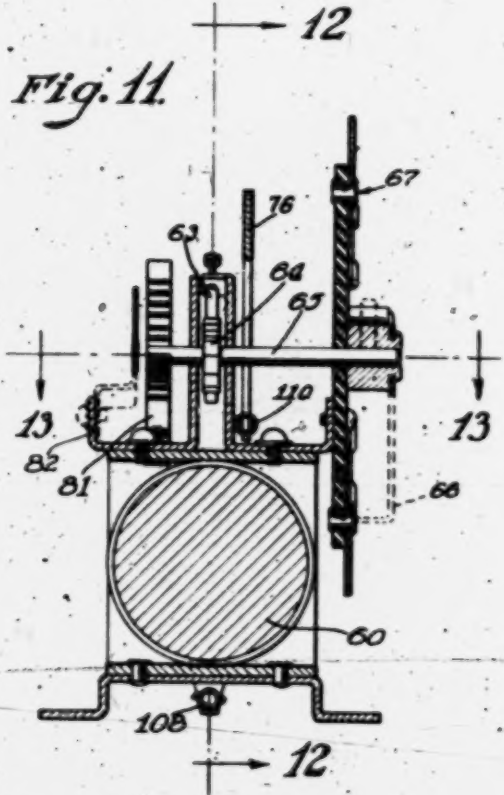
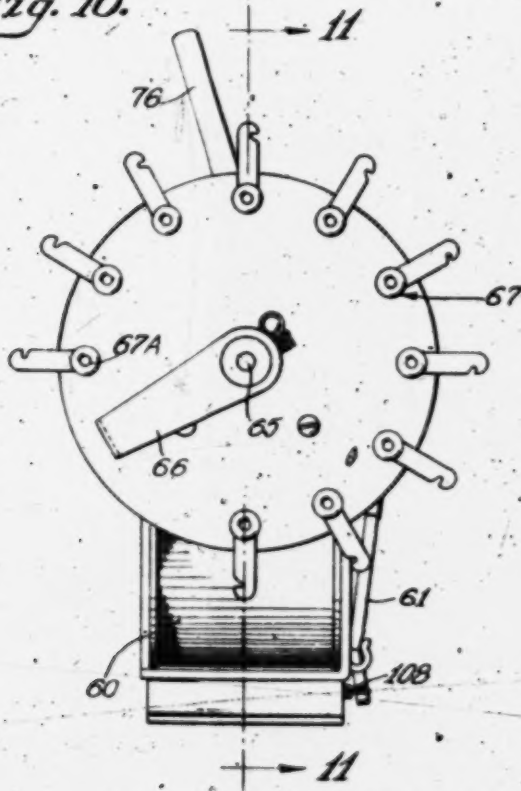


Fig. 12.

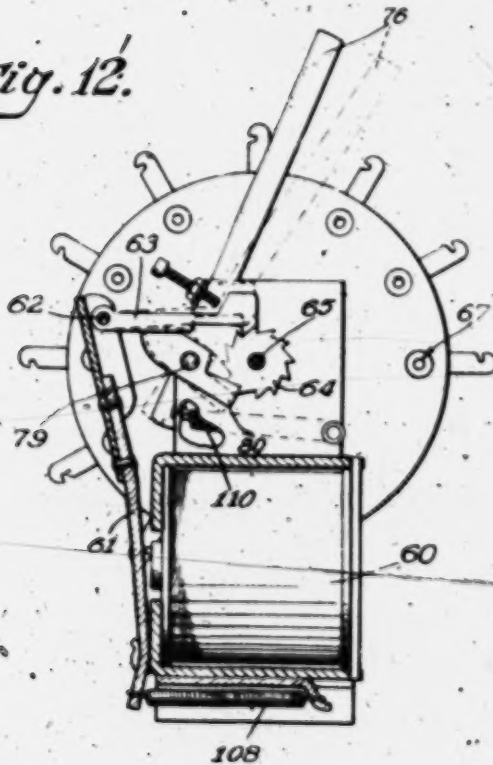
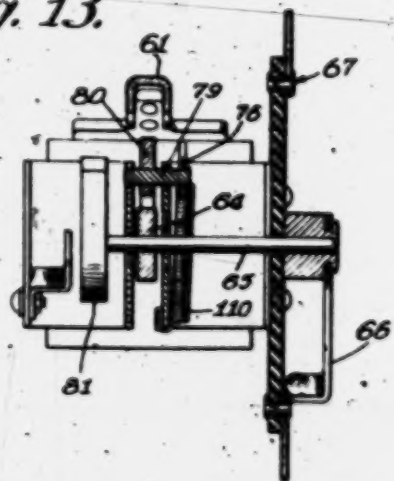


Fig. 13.



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5 Sheets-Sheet 5

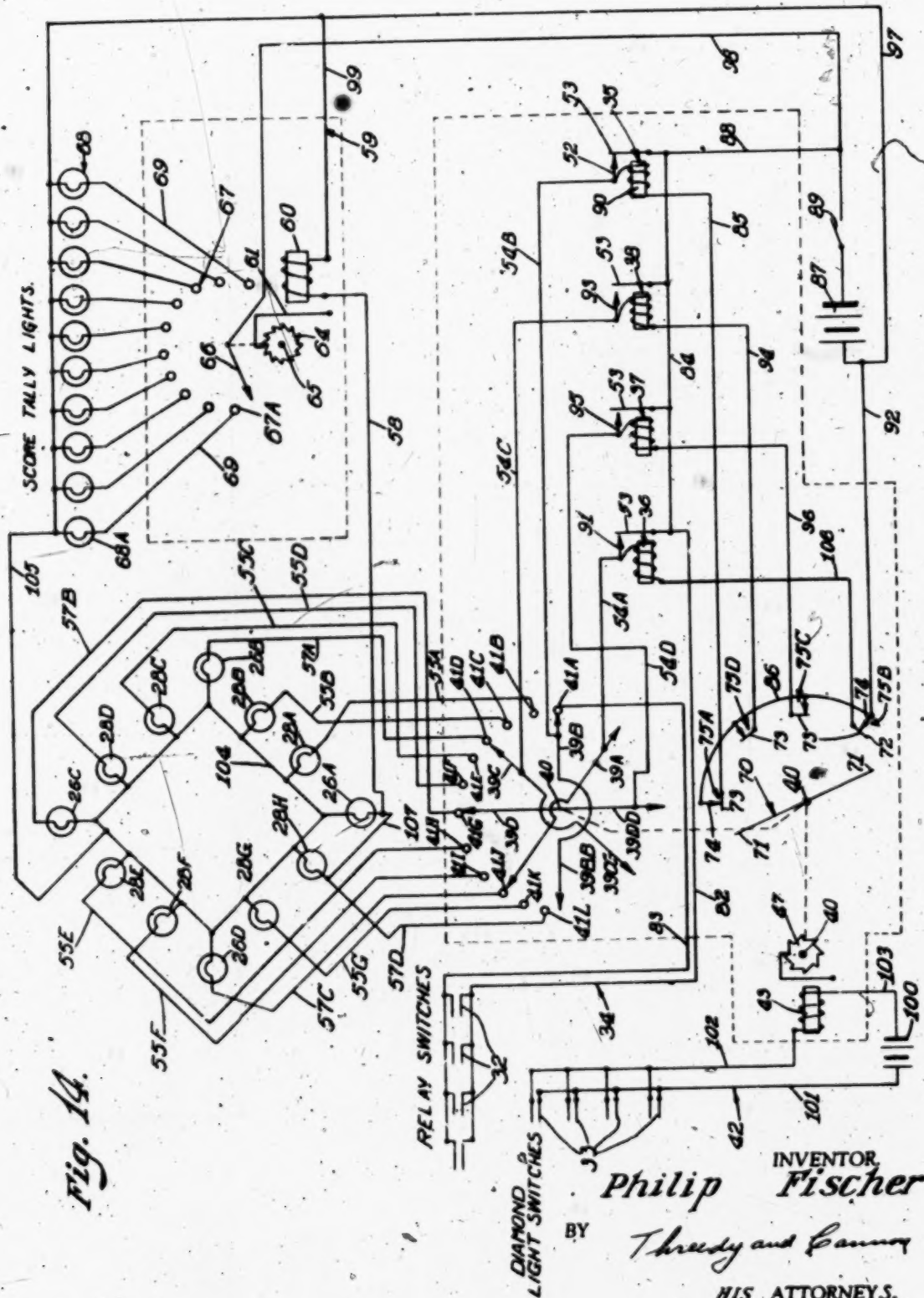


Fig. 14.

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UNITED STATES PATENT OFFICE

2,118,037

GAME APPARATUS

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15 Claims. (Cl. 273-88)

This invention relates to a game apparatus.

It is an object of this invention to provide an improved game apparatus which is relatively simple and inexpensive in construction and efficient in use.

Another object of the present invention is to provide a novel game apparatus, which is particularly adapted for use in conjunction with so-called pin and marble games, and which embodies a series or group of electric lights, visible, when illuminated, from a point above the playing surface, and arranged in the pattern of a baseball diamond, and means including a device actuated by played balls for successively closing circuit to said lights so as to represent the movement of a player around the diamond.

A further object of the present invention is to provide a novel game apparatus of the so-called pin and marble game type and which is particularly adapted for use as a baseball game or the like, said game apparatus embodying a series of electric lights arranged in the pattern of a baseball diamond, and means including a device actuated by a played ball for successively illuminating the said lights so as to simulate or represent the progressive movement of a player or players around the diamond.

An additional object of the invention is to provide a novel device for indicating or tallying the runs or scores made upon the apparatus.

A further object of the invention is to provide a novel device for resetting the score-tallying device back into its initial or zero position after operation thereof.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be understood best by reference to the accompanying drawings, showing the preferred form of construction and in which:

Fig. 1 is a top plan view of a game apparatus embodying a preferred form of the present invention;

Fig. 2 is a vertical section on line 2-2 in Fig. 1;

Fig. 3 is a sectional detail view, on line 3-3 in Fig. 1, showing one of the lights which are arranged below the playing surface or diamond of the apparatus to indicate the movement of a player around the diamond;

Fig. 4 is a top plan view, on line 4-4 in Fig. 2, showing the ball-actuated relays which control the circuit to the electric lights which are arranged around and below the diamond;

Fig. 5 is an end elevational view, on line 5-5

in Fig. 4, showing the switches by means of which the circuit to the lights is opened;

Fig. 6 is a vertical sectional view on line 6-6 in Fig. 5;

Fig. 7 is a vertical sectional view on line 7-7 in Fig. 6;

Fig. 8 is a vertical sectional view on line 8-8 in Fig. 6;

Fig. 9 is a sectional detail view of one of the relays, on line 9-9 on Fig. 6;

Fig. 10 is an elevational view of the circuit-closing device for the score-tallying unit which is embodied in the present invention;

Fig. 11 is a vertical sectional view, on line 11-11 in Fig. 10;

Fig. 12 is a sectional view, on line 12-12 in Fig. 11, showing the resetting device for the score-indicating or tallying unit which is shown in Figs. 10 and 11;

Fig. 13 is a sectional view on line 13-13 in Fig. 11;

Fig. 14 is a schematic wiring diagram of the electrical circuit embodied in the present invention; and

Fig. 15 is a detail sectional view of a coin-controlled switch embodied in the present apparatus, and taken on line 15-15 in Fig. 2.

Construction

A preferred form of the present invention is shown in the drawings, is therein generally indicated at 15, and comprises a cabinet 16 which includes an inclined playing board 17, having ball exit scoring openings or pockets 18 provided therein.

Arranged upon the inclined playing board 17, at an edge thereof, is a ball runway or ramp 19 and slidably mounted in the lower end wall 20 of the cabinet 16 is a ball-propelling device or plunger 21 by means of which balls may be propelled, one at a time, up the ramp 19 onto the upper portion of the inclined playing board 17 so that they may gravitate thereover and enter into the ball exit openings or pockets 18.

Defined upon the upper or playing surface of the inclined playing board 17, by means of rails 22, is a playing field 23 which is shown as having the form of a baseball diamond, and provided in the inclined playing board 17 at the four corners or base positions of the diamond 23 are openings 24 (Fig. 2). Arranged upon the inclined playing board 17, above each of the openings 24 is a transparent plate 25, and mounted in the cabinet 16 below each of the openings 24 and transparent plates 25 is a small electric light 26 (Fig. 2); these

lights 26 being generally referred to as lights 26 and being specifically identified as lights 26A, 26B, 26C, and 26D, which represent, respectively, home base, first base, second base and third base positions (Fig. 14).

Provided in the inclined playing board 17, between each of the base positions represented by the lights 26A, 26B, 26C, and 26D, are openings 27 (Figs. 1 and 3) and arranged upon the inclined playing board 17, above each of the openings 27, is a transparent lens 28; and mounted in the cabinet 16 below each of the openings 27 is a small electric light 29, these lights 29 being generally referred to hereinafter as the lights 29 and being specifically identified as the lights 29A and 29B, which are arranged between home base position (light 26A) and first base position (light 26B); lights 29C and 29D, which are arranged between first base position (light 26B) and second base position (light 26C); lights 29E and 29F, which are arranged between second base position (light 26C) and third base position (light 26D), and lights 29G and 29H, which are arranged between third base position (light 26D) and home base position (light 26A) (Fig. 14).

Provided in the cabinet 16 below the inclined playing board 17 and each having communication with a preselected and predetermined number of the ball exit openings or pockets 18 are inclined ball return runways 30 (Fig. 2); these runways 30 communicating at their lower ends with a transverse runway 31, by means of which balls may be returned to a point adjacent the propelling device or plunger 21 and the elevating means (not shown).

Arranged in each of the ball return runways 30 is a relay-actuating switch 32 and arranged in each of the ball return runways 30, but at a point or points therein below the corresponding relay-actuating switch 32 are one or more switches 33 (Fig. 14).

The relay-actuating switches 32 are arranged in an electric circuit which is generally indicated at 34 (Fig. 14) and this circuit includes a group of relays 35, 36, 37, and 38 (Fig. 14). Each of these relays 35, 36, 37, and 38 includes an electromagnet 39, stationary contacts 32-31-38, and 33, respectively, and each of the relays 35, 36, 37, and 38 includes a movable contact 33, which is engageable with the corresponding stationary contacts 32-31-38, and 33.

The relatively stationary contacts 32-31-38, and 33 of the relays 35, 36, 37, and 38 are electrically connected by means of conductors 34B, 34A, 34D, and 34C, respectively, to contact arms 38B, 38A, 38D, and 38C, respectively, and these contact arms 38B, 38A, 38D, and 38C are mounted upon a rotatable horizontal shaft 40 (Fig. 4), which is arranged in the cabinet 16 below the inclined playing board 17. Associated with and engageable successively by each of the contact arms 38A to 38D inclusive is a bank or group of radially arranged stationary contacts 41A to 41L inclusive (Fig. 14).

The switches 33 are arranged in an auxiliary circuit, generally indicated at 42 (Fig. 14), and this auxiliary circuit 42 includes a current source 100 and an electromagnet 43. Associated with this electromagnet 43 is a pivotal member 44 (Figs. 7 and 14) and pivotally mounted upon the upper end portion of this member 44, as at 45, is a pawl 46, and this pawl 46 is engageable with a ratchet 47 which is mounted upon the horizontal shaft 40 (Fig. 7).

The upper end portion of the member 44 pro-

jects between a pair of guide rollers 48 which are carried by a piston rod 49 which is attached to a piston 52 and the latter is slidably mounted in a cylinder 50, this piston rod 49, piston 52 and cylinder 50 forming a dash pot or timing device for timing or controlling the operative movement or strokes of the member 44 and the pawl 46 carried thereby under the action of the resetting spring 51, this resetting spring 51 being attached to the upper end portion of the pivotal member 44 (Figs. 5 and 7).

The contact 41A is electrically connected, in the circuit 34, with one side of the relay-actuating switches 32, by means of a conductor 53 (Fig. 14), and the contact 41B is electrically connected, by means of a conductor 55A, with the light 29A which is arranged adjacent home position (light 26A) and between the latter and first base position (light 26B).

Contact 41C is electrically connected, by means of a conductor 55B, with light 29B which is arranged adjacent first base position (light 26B) and between the latter and light 29A, and contact 41D is electrically connected, by means of a conductor 57A, with light 29B which represents first base position.

The other contacts 41 are similarly connected; contact 41E being electrically connected, by means of a conductor 55C, with the light 29C which is arranged adjacent to first base position (light 26B) and between the latter and second base position (light 26C); contact 41F is electrically connected, by means of a conductor 55D, with light 29D which is arranged adjacent to second base position (light 26C) and between the latter and light 29C; and contact 41G is electrically connected, by means of a conductor 57B, with the light 29C which represents second base position.

Contact 41H is electrically connected, by means of a conductor 55E, with the light 29E which is arranged adjacent to second base position (light 26C) and between the latter and light 29F, and light 29F is electrically connected with contact 41 "I" by means of a conductor 56F.

Light 29D, which represents third base position, is electrically connected, by means of a conductor 57C, with contact 41J and contact 41K is electrically connected with light 29G by means of a conductor 56G, light 29G being arranged adjacent to light 29D (which represents third base position), and between the latter and home base position (light 26A).

Light 29H, which is arranged adjacent to home base position (light 26A), and between the latter and light 29G, is electrically connected, by means of a conductor 57D, with contact 41L, and this conductor 57D also connects with conductor 101 to light 29A, which represents home base position, and joins the same in parallel with light 29H.

When a played ball, upon passing through one of the ball exit openings or pockets 18 enters the corresponding ball return runway 30 it engages and closes the corresponding one of the switches 32, thereby closing the relay 35, and as the played ball travels further down the runway 30 it engages and closes one or more of the switches 33, thereby closing the circuit 42 to the electromagnet 43 (Figs. 7 and 14), a corresponding number of times, and when the electromagnet 43 is thus actuated it attracts the pivotal member 44 and the pawl 46 carried thereby to pivot the same (counterclockwise, Fig. 7). This motion of the pawl 46 causes the same to engage the ratchet 47 and move the latter and the shaft 40 a predetermined circumferential distance (counterclockwise).

se, Fig. 7) thereby moving the contact arms A to 39 inclusive successively into engagement with a predetermined number of the contacts 41, which will be explained more fully hereinafter.

Leading from the light 26A, which represents home base position (Fig. 14), is a conductor 58 which is arranged in an auxiliary circuit 59, and this circuit 59 includes an electromagnet 60, (Figs. 2 and 10 to 14 inclusive). Associated with the electromagnet 60 is a pivotal member 61 and is electrically connected to this member 61, as at 62, by a pawl 63. This pawl 63 is engageable with a ratchet 64 which is arranged upon a horizontal shaft 65, and carried by this shaft 65 is a contact arm 66 which is successively engageable with a series of radially arranged stationary contacts 67. A coil spring 68 (Figs. 11 and 13) is wound about the shaft 65 and has one end portion attached thereto.

Associated with each of the stationary contacts 67 is a small electric score-tally light 69 (Fig. 14), the contacts 67 and the tally lights 69 being electrically connected, by means of conductors 70, (Fig. 14) and the lights 69 being, preferably, arranged in a bank or row at the upper end of the cabinet 16 (Fig. 1) so as to be visible to the player from a point above the playing surface 17 of the same.

Attached to the shaft 49 at one end thereof is an arm 70, (Figs. 4, 5, and 14) and the end portions 71 of this arm 70 are successively engageable with the angled end portions 72 of resilient contact members 73, each of these contact members 73 being engageable with a corresponding contact 74. Each pair of these contacts 73 and 74 forms a switch 75 and these switches 75 are specifically identified and referred to herein as switches 75A, 75B, 75C, and 75D (Fig. 5).

The relatively stationary contacts 74 of the switches 75 are electrically connected, by means of a conductor 80 (Fig. 14), and the resilient contact 75 of the switch 75A is electrically connected, by means of a conductor 81, to one side of the electromagnet 90 of the relay 35. Similarly, the resilient contact 73 of the switch 75B is electrically connected, by means of a conductor 100, with one side of the electromagnet of the relay 36, and the contact 74 of the switch 75B is likewise electrically connected, by means of a conductor 92, with one side of a current source 87, which may be a battery of dry cells, or the like, arranged in the cabinet 16.

In a similar manner, the resilient contact 73 of the switch 75C is electrically connected, by means of a conductor 96, with one side of the electromagnet of the relay 37, and the resilient contact of the switch 75D is electrically connected, by means of a conductor 94, with one side of the electromagnet of the relay 38.

Mounted on a horizontal shaft 79 which is arranged in the cabinet 16 below the inclined playing board 17 is an upwardly extending arm 76 (Figs. 2, 10, and 12) and the upper end portion of this arm 76 is engageable with an arm 77 which depends from the coin slide 78 (Fig. 2), and likewise mounted on the shaft 79 is a latch dog 88 which is engageable with the teeth of the ratchet 64 (Fig. 12).

One side of the current source, or battery, 87 is electrically connected, by means of a conductor 87, to one side of each of the score-tally lights 69 (Fig. 14) and the battery 87 is also electrically connected, by means of a conductor 98, with the contact arm 66; it being noted that one side of the electromagnet 60 is electrically connected, by

means of a conductor 99, to the conductor 97 which leads from the battery 87 and the other side of the electromagnet 60 is electrically connected, by means of a conductor 98, to the light 26A which represents home base position. The score-tally lights 69 are electrically connected, by means of conductors 99, with the contacts 67 (Fig. 14); it being noted that the lights 26 and 28 are electrically connected to a common ground 104 (Fig. 14) which, in turn, is electrically connected to the conductor 97 by means of a conductor 105.

It is also noted that the conductor 84 is electrically connected to the source of energy 87 by means of a conductor 88 and 90.

Operation

The operation of the present apparatus will now be described as applied, in the preferred embodiment of the invention shown, to a baseball game, although it is to be understood that the present invention is not limited to use as a baseball game but may be used in conjunction with other types of coin-controlled or non-coin-controlled amusement games such, for example, as football games, basketball games, and the like.

In the following example, the operation of the present game apparatus will be described with reference to the parts as the same are positioned in Fig. 14, and the first operation which will be described in the following example, will be the scoring of a one base hit, thereby moving a player from home base position to first base position, that is, illuminating the light 26B which represents first base position; the illustrative example of the operation of the apparatus when, with a player at first base, that is, with the light 26B illuminated, the player makes a three base hit.

Accordingly, assuming that the parts are positioned as in Fig. 14, and that the player succeeds in scoring a ball into one of the ball exit openings or pockets 18 and corresponding runways which have the scoring value of a one base hit.

In this event, the thus played ball will travel down the corresponding runway 30 and will engage and close the corresponding relay switch 32, thereby closing the circuit 34 to the relay 35, whereupon current will flow through the relay 35 as follows:

From the battery or current source 87, through the conductor 92 (Fig. 14) to the conductor 80, through the switch 75A, through the conductor 85 to one side of the electromagnet 90 of the relay 35, thence from the opposite side of the coil 90 of the relay 35 into the conductor 84B which is connected to the contact arm 39B (Figs. 6, 8, and 14), the contact arm 39B being at this time disposed in engagement with the contact 41A, thence, by way of the conductor 93 to one side of the corresponding actuated switch 32, and from the opposite side of the actuated switch 32 back to the current source or battery 87 by way of the conductors 82, 84, 86, and 98, thereby actuating the relay 35 and causing the movable contact 83 thereof to be attracted into engagement with the corresponding stationary contact 82 of the same; it being noted that the particular one of the relays 35, 36, 37, and 38 which will be actuated by the action of a ball traveling down one of the runways 30 over the corresponding switch 32 therein is determined by the relative positions of the contact arms 39A to 39D inclusive; and that the relay which is thus ac-

tuated by the action of a ball passing over one of the switches 32 is the relay which is at this time electrically connected with the contact 41A by means of the corresponding conductor 54A, 54B, 54C, or 54D and the corresponding contact arm 39A, 39B, 39C, or 39D.

As the played ball travels further down the runway 30, it will engage and close one of the switches 32 (Fig. 14), (it being noted that the particular runway 30 which is referred to in the present example has only one of the switches 32 disposed therein and corresponds to a one base hit), thereby closing the auxiliary circuit 42 to the electromagnet 43, whereupon current will flow from the battery or current source 100, by way of the conductor 103, to one side of the electromagnet 43, thereby actuating the latter, and thence through the electromagnet 43 and conductors 102, switches 33 and 101 back to the other side of the current source or battery 100.

When the electromagnet 43 is thus actuated it attracts the pivotal member 44 (Fig. 7), thereby pivoting the member 44 and the pawl 46 (clockwise, Fig. 7), thus tensioning the spring 51, and when the played ball passes over the actuated switch 32 and the auxiliary circuit 42 to the electromagnet 43 is opened, the tensioned spring 51 will act upon the member 44 to pivot the latter and the pawl 46 carried thereby (counterclockwise, Fig. 7). This movement of the pawl 46 rotates the ratchet 47, the shaft 48, and the contact arms 39A to 39D inclusive, which are carried by the shaft 48, a predetermined circumferential distance (counterclockwise, Fig. 14), this circumferential movement of the contact arms 39A, to 39D inclusive being equal to the circumferential distance between the contact 41A and the contact 41D (Fig. 14).

When the contact arms 39A to 39D inclusive are thus rotated a circumferential distance corresponding to the distance between the contacts 41A and 41D (Fig. 14), the contact arm 39B moves out of engagement with the contact 41A and successively into engagement with the contacts 41B, 41C, and 41D and, in the present example, comes to rest or stops in engagement with the contact 41D.

When the contact arm 39B engages the contact 41B circuit is closed to the light 28A which is arranged adjacent to home base position (light 28A), and between the latter and first base position (light 28B), it being understood that at this time the relay 35 is closed, whereupon current will flow as follows: From the battery 87, through the conductors 88 and 89, into the movable contact 53 of the relay 35, which contact 53 is at this time disposed in engagement with the contact 52 of the relay 35, thence through the conductor 54B to the contact arm 39B, through the latter and contact 41B and conductor 54A to the one side of the light 28A, the other side of the light 28A, being electrically connected, by means of the conductors 104, 105, and 97 (Fig. 14) to the other side of the battery 87.

When the light 28A is thus illuminated it indicates or represents that a player is moving from home base position, (light 28A) toward first base position (light 28B), and when the contact arm 39B during this movement, continues to move (counterclockwise, Fig. 14, from the position in which it is shown in Fig. 14, in engagement with the contact 41A to a position wherein it is disposed in engagement with the contact 41D) engages the contact 41C, the light 28B is illuminated, this light 28B being arranged adjacent to

first base position (light 28B) and between the latter and the light 28A; whereupon current will flow through the light 28B as follows: From the battery 87, through the conductors 88 and 89 into the movable contact 53 of the relay 35, which contact 53 is, at this time, disposed in engagement with the contact 52 of the relay 35, thence through the conductor 54B, through the latter into the contact arm 39B, through the contact 41C and conductor 54B to one side of the lamp 28B; and thence through the lamp 28B and by way of the conductors 104, 105, and 97 back to the other side of the battery 87, thereby illuminating the lamp 28B and indicating the progressive movement of the player from home base position (lamp 28A) to first base position (lamp 28B).

At the end of its movement, in this present example, that is, when the contact arm 39B moves from its position as shown in Fig. 14, wherein it is disposed in engagement with the contact 41A, to a position wherein it is disposed in engagement with the contact 41D, the lamp 28B, which indicates or represents first base position, is closed, so as to indicate that the player has made a one base hit and has traveled from home base position (light 28A) to first base position (light 28B), and at this time, that is, when the contact arm 39B is disposed in engagement with the contact 41D, current will flow through the lamp 28B (which represents first base position) as follows: From the battery 87 by way of the conductors 88 and 89 into the movable contact 53 of the relay 35, which contact 53 is at this time disposed in engagement with the corresponding contact 52, thence through the conductor 54B to the contact arm 39B, through the latter and thence through the contact 41D and conductor 54A to one side of the lamp 28B (which represents first base position), then through the lamp 28B and by way of the conductors 104, 105, and 97 back to the other side of the battery 87, thereby illuminating the lamp 28B and thus indicating that the player has made a one base hit and has moved from home base position (lamp 28A) to first base position (lamp 28B).

The lamp 28B, which represents first base position, and which has been thus illuminated, will remain lit, so as to indicate that a player is disposed on first base, until the player of the present game apparatus plays another ball into one of the ball exit scoring openings or pockets 18 in the inclined playing board 17; and, for the purpose of better and further illustrating the operation of the present game apparatus, it will now be assumed, that the player makes a three base hit and advances the player who is disposed at first base (as indicated by the illumination of the lamp 28B) to home base position, which will be indicated by the illumination of the lamp 28A, and illuminates lamp 28D which represents third base position, it being understood that to effect a three base hit a ball must be played through one of the ball exit openings 18 which are provided in the inclined playing board 17 into one of the runways 30 in which there are arranged not only one of the relay switches 32 but also three of the switches 33 (Fig. 14).

Assuming, therefore, that the parts are positioned as hereinbefore described, that is, assuming that the player has made a one base hit and that the relay 35 is closed, that the contact 39B is disposed in engagement with the contact 41D, thereby illuminating the light 28B which represents first base position, and that the contact 39A

is disposed in engagement with the contact 41A, and that the player then succeeds in playing a ball into the ball exit opening 18 which represents or has the scoring value of a three base hit.

The ball thus played into a ball exit opening 18 which represents a three base hit will, upon dropping through the latter and into the corresponding runway 30, travel down the runway 30 and engage and close the corresponding relay switch 32, thereby closing circuit to relay 35, it being understood that at this time the contact arm 39A is disposed in engagement with the contact 41A, rather than being disposed in the position in which it is shown in Fig. 14, whereupon current will then flow from the battery 87, through the conductors 82, through the switch 75B, and thence through conductor 104 and relay 35, thereby actuating the latter, thence through the conductor 84A and contact arm 39A to contact 41A, through the latter and conductor 83 to the corresponding relay actuating switch 32, and thence by way of the conductors 82, 84, and 88 and 98 back to the other side of the battery 87.

Accordingly, when the played ball, upon traveling further down the runway 30, passes successively over and closes the three switches 32 therein (it being recalled that the player in the present example is considered as having made a three base hit), it closes the circuit 42 and actuates the electromagnet 43 (Fig. 14) three successive times. Each time the electromagnet 43 is thus actuated the ratchet 47, shaft 48 and contact arms 39A to 39D inclusive will be moved, as explained hereinbefore, a predetermined circumferential distance (counterclockwise, Fig. 14), this distance corresponding to the circumferential distance between three adjacent contacts 41 that is, for example, between the contacts 41A and 41D, as here before explained, and this movement of the contact arms 39A to 39D inclusive (counterclockwise, Fig. 14) will move the contact arm 39B which, in the foregoing example, is at this time disposed in engagement with the contact 41D, successively into engagement with the contacts 41E, 41F, 41G, 41H, 41I, 41J, 41K, and 41L, thereby successively illuminating the lights 28C, 28D, 28E, 28F, 28G, 28H, and 28A, respectively, and thus indicating that the player who was originally disposed at first base (as indicated by the illumination of the lamp 28B) has moved around the diamond 23 and has crossed home base, as indicated by the illumination of the lamp 28A.

As the player disposed on first base starts to advance around the diamond 23, when the next succeeding player makes a three base hit, that is, when the contact arm 39B, in the present example moves out of engagement with the contact 41D and successively into engagement with the contacts 41E, 41F, 41G, 41H, 41I, 41J, 41K, and 41L, the lamps 28C, 28D, 28E, 28F, 28G, and 28H will be successively illuminated, respectively as follows: (For the lamp 28C): From the battery 87, through the conductors 88 and 89, contacts 83 and 82, of the relay 35, conductor 84B, contact arm 39B, contact 41E, conductor 85C, lamp 28C and thence by way of conductors 104, 105, and 97 back to the battery 87; (For the lamp 28D): From the battery 87 through the conductors 88 and 89, contacts 83 and 82 of the relay 35, conductor 84B, contact arm 39B, contact 41F, conductor 85D, lamp 28D, and thence by way of conductors 104, 105, and 97 back to the battery 87; (For the lamp 28E which represents second base position): From the battery 87, through conduc-

tors 88 and 89, contacts 83 and 82 of the relay 35, conductor 84B, contact arm 39B, contact 41G, conductor 87B, lamp 28E, and thence by way of conductors 104, 105 and 97 back to the battery 87; (For the lamp 28F): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of the relay 35, conductor 84B, contact arm 39B, contact 41H, conductor 85E, lamp 28F, and thence by way of conductors 104, 105 and 97 back to the battery 87; (For the lamp 28G): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 35, conductor 84B, contact arm 39B, contact 41I, conductor 85F, lamp 28G, and thence by way of conductors 104, 105, and 97 back to the battery 87; (For the lamp 28H which represents third base position): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 35, conductor 84B, contact arm 39B, contact 41J, conductor 85G, lamp 28H, and thence by way of conductors 104, 105, and 97 back to the battery 87; (For the lamp 28A): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 35, conductor 84B, contact arm 39B, contact 41K, conductor 85H, lamp 28A, and thence by way of conductors 104, 105, and 97 back to the battery 87; (For the lamp 28B): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 35, conductor 84B, contact arm 39B, contact 41L, conductor 87D, lamp 28B, and thence by way of conductors 104, 105, and 97 back to the battery 87; and when the lamp 28H is thus illuminated the home base light 28A is also illuminated to indicate that the player who was originally disposed on first base has now crossed home plate, it being noted that the lamp 28A, which represents home base position and the lamp 28H are connected in parallel by means of a conductor 107; current flowing from the conductor 87D, through the lamp 28A, by way of the conductor 107, and thence by way of the conductors 104, 105 and 97 back to the battery 87.

When, in the foregoing example, the player makes a three base hit with a man on first base, that is, expressed in other terms, when the played ball passes over three successive switches 32 and thereby moves the shaft 48 a predetermined circumferential distance (clockwise, Fig. 5), thereby moving the contact arm 39B out of engagement with the contact 41D, and successively into engagement with the contacts 41E to 41L inclusive, and as the contact arm 39B moves out of engagement with the contact 41L into a position wherein it is disposed diametrically opposite to the position in which it is shown in Fig. 14, one end portion 71 of the arm 70 (Figs. 5 and 14) engages the angled portion 72 of the contact 73 of the switch 75A and thereby moves the same out of engagement with the corresponding contact 74 of the switch 75A, thus opening the circuit 87—82—83—75A—85—84—89, thereby opening the circuit to the coil 90 of the relay 35, whereupon the tensioned spring 100 of the relay 35, will urge the movable contact 83 of the relay 35 (clockwise, Fig. 4), out of engagement with the contact 82 of the relay 35, thereby opening the circuit to the diamond lights 28 and 28 and, at the same time, positioning the opposite end portion 39BB of the contact arm 39B in engagement with the contact 41A, and thus arranging the parts in a position wherein the foregoing cycle of operations may be repeated.

When the lamp 28A, which represents home base position, is illuminated, as in the foregoing example, thereby indicating that the player who

was originally on first base has crossed home plate and has scored a run, current will flow from the conductor 87D, by way of the conductors 187 and 88 to the electromagnet 88, and thence by way of the conductors 88 and 87 back to the battery 87, thus actuating the electromagnet 88.

When the electromagnet 88 is thus actuated, it attracts the member 81 (clockwise, Fig. 12), thereby tensioning the spring 188, and when the contact arm 38B passes out of engagement with the contact 41L, and thereby opens the circuit 87-88-78A-38-54B, 38B, 41L, 87D, 187, 88, 88, 87 through the electromagnet 88, the tensioned spring 188 acts upon the member 81 to pivot the same and the pawl 83 carried thereby (counterclockwise, Fig. 12). This movement of the pawl 83 moves the ratchet 84, the shaft 85, and contact arm 86 carried thereby a predetermined circumferential distance (counterclockwise, Fig. 12, clockwise, Fig. 14), thereby moving the contact arm 86 into engagement with the contact 87A (Fig. 14), whereupon current will flow through the score tally lamp 88A, thereby illuminating the same and thus indicating that the player has made a run or score, as follows: From the battery 87, through the conductor 88, contact arm 86, contact 87A, conductor 89, tally light 88A, and thence by way of conductor 87 back to the battery 87.

The foregoing movement of the ratchet 84 and shaft 85 (counterclockwise, Fig. 12, clockwise, Fig. 14), which moves the contact arm 86 into engagement with the contact 87A to illuminate the score tally light 88A, tensions the resetting spring 81; and the tally light 88A will remain illuminated to indicate that the player has made one run or score, until the coin slide 78 is again operated, whereupon the depending arm 77 of the coin slide 78 will engage the upper end portion of the arm 76 and move the same (clockwise, from full to dotted line position, Fig. 12), against the action of its resetting opening 118. This movement of the arm 76 (clockwise, from full to dotted line position, Fig. 12) moves the shaft 78 which is fixed to arm 76, and the latch dog 88 which is fixed to the shaft 78 (Fig. 12) a predetermined circumferential distance (clockwise, Fig. 12), thereby moving the latch dog 88 out of latching engagement with the ratchet 84, and thus raising the pawl 83 from full to dotted line position (Fig. 12) or, in which position the pawl 83 is disposed out of engagement with the ratchet 84, whereupon the tensioned resetting spring 81 will move the shaft 85 and the contact arm 86 carried thereby back into their initial positions (clockwise, Fig. 12), into the position in which they are shown in Fig. 12, thereby moving the contact arm 86 out of engagement with the contact 87A and thus opening the circuit 87-88-86-87A-88-88A-188-87 to the score tally light 88A.

When, in the foregoing example, the player makes a three base hit with a man on first base, that is, translated into the terms of the parts shown in Fig. 14, when a ball engages one of the relay switches 33 and closes the circuit 34 to the relay 38, and then upon passing further down the corresponding runway 36 engages and closes successively three of the switches 33, the circuit 42 to the electromagnet 43 is closed three successive times, thereby moving the ratchet 47, shaft 48, and contact arm 38A, a predetermined circumferential distance (counterclockwise, Fig. 14). This movement of the shaft 48 and the contact arm 38A carried thereby moves the contact arm 38A from a position wherein it is disposed in engage-

ment with the contact 41B into a position in which it is disposed in engagement with the contact 41J, thereby successively closing circuit to the lamps 28A, 28B, 28C, 28D, 28E, 28F, 28G, and 28H, and thus indicating that the batter has made a three base hit and is now disposed at third base, circuit to the lamps 28A, 28B, 28C, 28D, 28E, 28F, 28G, and 28H being closed as follows: (For the lamp 28A): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of the relay 38, conductor 84A, contact arm 38A, contact 41B, conductor 85A, lamp 28A, and thence by way of conductors 184, 185 and 87 back to the battery 87; (For the lamp 28B): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 38, conductor 84A, contact arm 38A, contact 41C, conductor 85B, lamp 28B, and thence by way of conductors 184, 185 and 87 back to the battery 87; (For the lamp 28C, which represents first base position): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 38, conductor 84A, contact arm 38A, contact 41D, conductor 85A, lamp 28C, and thence by way of conductors 184, 185 and 87 back to the battery 87; (For the lamp 28D): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 38, conductor 84A, contact arm 38A, contact 41E, conductor 85C, lamp 28D, and thence by way of conductors 184, 185 and 87 back to the battery 87; (For the lamp 28E): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 38, conductor 84A, contact arm 38A, contact 41F, conductor 85D, lamp 28E, and thence by way of conductors 184, 185, and 87 back to the battery 87; (For the lamp 28F, the illumination of which indicates that the player who has made a three base hit in this present example is passing second base position): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 38, conductor 84A, contact arm 38A, contact 41G, conductor 85B, lamp 28F, and thence by way of conductors 184, 185, and 87 back to the battery 87; (For the lamp 28G): From the battery 87, through the conductors 88 and 89, contacts 83 and 82 of relay 38, conductor 84A, contact arm 38A, contact 41H, conductor 85E, lamp 28G, and thence by way of conductors 184, 185, and 87 back to the battery 87; (For the lamp 28H): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 38, conductor 84A, contact arm 38A, contact 41I, conductor 85F, lamp 28H, and thence by way of the conductors 184, 185, and 87 back to the battery 87; (For the lamp 28D, the illumination of which indicates that the player who, in this present example, has made a three base hit has now arrived at third base): From the battery 87, through conductors 88 and 89, contacts 83 and 82 of relay 38, conductor 84A, contact arm 38A, contact 41J, conductor 85C, lamp 28D, and thence by way of conductors 184, 185, and 87 back to the battery 87, thereby indicating that the player who, in this present example, has made a three base hit, is now disposed at third base position; it being noted that this lamp 28D, which represents third base position, will remain lit until the player again scores a ball into one of the ball exit or scoring openings 18 and thereby advances the contact arm 38A out of engagement with the contact 41J (counterclockwise, Fig. 14); or, until such time as the coin slide 78 is moved inwardly, whereupon the depending arm 77 of the coin slide 78 will disengage and open the coin-operated switch 88 (Figs. 2, 14, and 15) thereby moving all of the relays 38

to 38 inclusive back into their initial or ineffective positions.

It is to be noted, in connection with the operation of the present apparatus, as described in the foregoing example, that when the batter makes a three base hit with a man on first base, thereby moving the contact arm 38A successively into engagement with the contacts 41A to 41J inclusive, the lights 28A, 28B, 28C, 28D, 28E, 28F, and 28G are successively illuminated but that when the end portion 38DD of the contact arm 38D, following the contact arm 38A, (counterclockwise, Fig. 14) successively engages the contacts 41A to 41G inclusive the lights 28A, 28B, 28C, 28D, and 28E are not illuminated because of the fact that at this time the relay 37, which is associated with the movable contact arm 38D, is positioned with the movable contact 53 thereof disposed out of engagement with the stationary contact 95 of the same; and the same is true of the end portion 38CC of the contact arm 38C, which will not illuminate the lights 28A, 28B, and 28C, as it successively engages the contacts 41A, 41B, 41C, and 41D, since at this time the relay 36, which is associated with the contact arm 38C, is open, that is, the movable contact 53 thereof is disposed out of engagement with the stationary contact 93 of the same.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. In a game apparatus, an arrangement of lights for representing the progress of the game, a first means for illuminating said lights in a predetermined order, a second means actuated by an instrumentality used in playing the game and operable to condition said first means to illuminate a particular group of said lights, and a third means also actuated by said instrumentality but subsequently to the actuation of said second means, for operating said first means to effect illumination of said particular group of lights for the purpose aforesaid.

2. A game apparatus including runways down which balls move, an arrangement of lights illuminable to simulate the progress of a game, a plurality of rotary sequence switches each provided with stationary contacts connected with selected lights and each having a movable contactor for said stationary contacts, together with a common driving means for said movable contactors, relay means for connecting said movable contactors in a power circuit to energize said lights, a first control switch means for actuating said relay means and arranged in said runways for operation by a ball therein, a second control switch means in said runways and also operable by said ball subsequently to the operation of said first control switch means for actuating said common driving means, release switch means operated by said common driving means intermittently to render said relay means momentarily inoperative, and manually operable switch means arranged in said power circuit for deener-

gizing said apparatus and restoring the same to an initial condition.

3. In game apparatus, a light system for simulating the progress of a game, a master sequence switch connected with said lights and operable to illuminate the same in a predetermined order, relay means operably controlled by an instrumentality used in playing the game apparatus for connecting said sequence switch variously with a source of power whereby certain lights may be energized and kept lighted in a certain order, control switch means also operated by said instrumentality for actuating said master switch, and release switch means operably controlled by said master switch for periodically rendering said relay means ineffective whereby said certain lights may be extinguished in a desired sequence.

4. In a game apparatus, the combination of: a cabinet including a member providing a ball playing surface provided with a ball exit opening or pocket; a plurality of electric lights in said cabinet, visible, when illuminated, from a point above said playing surface and arranged to represent a baseball diamond; a relay in the said cabinet; a ball return runway in the said cabinet below, and in communication with, the said ball exit opening or pocket; a switch in the said ball return runway closed by the action of a ball traveling therealong for actuating said relay; and means including a second switch arranged in the said runway closed by the action of a ball traveling therealong and coacting with the said relay when the latter is actuated for successively illuminating the said lights so as to represent the various progressive movements of a player from one base position to another upon the said diamond.

5. In a game apparatus, the combination of: a cabinet including a member providing a ball playing surface provided with a ball exit opening or pocket; a plurality of electric lights in the said cabinet, visible, when illuminated, from a point above said playing surface and arranged to represent a baseball diamond; a relay in the said cabinet; a ball return runway in the said cabinet below and in communication with the said ball exit opening or pocket; a switch in the said ball return runway closed by a ball traveling therealong for actuating said relay; and means including a series of switches arranged in the said ball return runway successively closed by a ball traveling therealong and coacting with the said relay when the latter is actuated for successively illuminating the said lights so as to represent the various progressive movements of a player from one base position to another upon the said diamond.

6. In a game apparatus, the combination of: a cabinet including a member providing a ball playing surface provided with a ball-receiving pocket or exit opening; a plurality of electric lights in said cabinet, visible, when illuminated, from above said playing surface and arranged to represent the various positions of a ball or player in an amusement game; a ball return runway in the said cabinet having communication with said ball exit opening or pocket; a relay in the said cabinet; a switch arranged in the said ball return runway and closed by the action of a ball traveling therealong for actuating the said relay; and means including a second switch arranged in the said ball return runway and actuated by the action of a ball traveling therealong and coacting with the said relay when the latter is actuated for successively illuminating

the said lights so as to represent the various movements of a ball or player from one position to another in said amusement game.

7. In a game apparatus, the combination of:
 5 a cabinet including a member providing a ball-playing surface provided with a ball-receiving pocket or exit opening; a plurality of electric lights in said cabinet, visible, when illuminated, from above said playing surface and arranged
 10 to represent the various positions of a ball or player in an amusement game; a ball return runway in the said cabinet having a communication with said ball exit opening or pocket; a relay in the said cabinet; a switch arranged in
 15 the said ball return runway closed by the action of a ball traveling therealong for actuating said relay; and means including a series of switches arranged in the said ball return runway and successively actuated by the action of a ball traveling
 20 therealong and coacting with the said relay when the latter is actuated for successively illuminating said lights so as to represent the various movements of a ball or player from one position to another in said amusement game.

8. In a game apparatus, the combination of:
 25 a cabinet including a member providing a ball-playing surface provided with a ball-receiving pocket or exit opening; a plurality of electric lights in said cabinet, visible, when illuminated, from above said playing surface and arranged
 30 to represent the various positions of a ball or player in an amusement game; a ball return runway in the said cabinet having communication with said ball exit opening or pocket; a relay in the
 35 said cabinet; a switch arranged in the said ball return runway closed by the action of a ball traveling therealong for actuating said relay; and means including a second switch arranged in
 40 the said ball return runway and actuated by a ball traveling therealong and coacting with said relay when the latter is actuated for successively illuminating said lights so as to represent the
 45 various movements of a ball or player from one position to another in said amusement game.

9. In a game apparatus of the type having a play field on which a ball is played and ball runways down which a played ball may roll, a plurality of electric lights arranged so as to represent, when illuminated, various positions of a player in an amusement game, control means
 50 comprising: a relay, a first switch means for operating said relay and arranged in one of said runways for operation by a ball moving therein, a master switch operable in steps to illuminate
 55 said lights in a predetermined order, a second switch means arranged in said runway for operation by said ball after the same has actuated said first switch means to operate said master
 60 switch a predetermined number of steps, said master switch and relay coacting to successively effect illumination of said lights so as to represent the various movements of a player from one position to another.

10. Control apparatus in accordance with claim 9 and further characterized by the provision of release switching means cooperable with said master switch for periodically effecting release of said relay from operated condition, whereby
 70 certain of said lights may be repeatedly and successively illuminated and darkened to duplicate certain simulated movements of another player.

11. In an amusement apparatus of the type including means for moving a ball over a surface provided with ball exits, and runways down

which balls pass from said exits, indicating means including an arrangement of lights to represent the progress of a game, a main switching means for illuminating said lights in a predetermined order and of a type which can be electrically conditioned for operation to illuminate a particular light upon a predetermined number of operations of said main switching means, relay means operable with said main switching means to condition the latter electrically as aforesaid, a control means arranged in said runways for operation by a ball to operate said relay means for the purpose aforesaid, and other control means also arranged in said runways for operation by a ball after operation by said ball of said first control means to operate said main switching means and means cooperable with said main switching means for periodically and momentarily disconnecting one of said relays from cooperative relation with said main switching means.

12. In a game apparatus, an arrangement of lights for simulating the progress of a game, electrically operable switch device for effecting illumination of said lights in a predetermined sequence, relay means cooperable with said switch device to condition the latter to illuminate a certain number of said lights when said switch device is operated, control means arranged in said apparatus for engagement and operation of an instrumentality used in playing the game to actuate said relay means for the purpose aforesaid, and other control means similarly arranged for actuation by said instrumentality but said first-mentioned control means has been actuated, to operate said switch device, and means for automatically restoring said switch device to an initial condition with said lights extinguished after a particular one of said lights has been illuminated.

13. In a game apparatus, including an arrangement of lights simulating a baseball diamond and illuminable to represent the progress of the game, rotary switch means for illuminating said lights sequentially to represent the movement of base runners, and including a plurality of contactors each connected with relay means operable to connect the same with a source of power, said relays being provided with a locking circuit to hold the same in operated condition, said relays being initially operated by operation of said rotary switch, such that said contactors may be energized to illuminate certain base lights with which said energized contactors connect, said operation of the rotary switch, a first control switch means in said apparatus and operable as an instrumentality used in playing the game to operate corresponding relays for the purpose aforesaid, and a second control switch means also operable by said instrumentality but subsequent to the operation of said first control switch means, for operation of said rotary switch, and a selectively operable switch means for effecting restoration of said apparatus to an initial condition with said lights extinguished.

14. The device of claim 13 in which there is further provided releasing switch means connected with said locking circuit and cooperable with said rotary switch for effecting release of said relays to disconnect each of said contactors from operative condition in sequential order at certain intervals of operation of said rotary switch.

15. The device of claim 13 in which there is further provided releasing switch means con-

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connected with said locking circuit relays and co-operable with said rotary switch for effecting release of said relays to deenergize each of said contactors in sequential order upon a predetermined number of operations of said rotary switch, together with tally indicating means and tally

switch control mechanism therefor and actuated by said rotary switch whenever the latter effects illumination of a particular one of said lights corresponding to home plate position.

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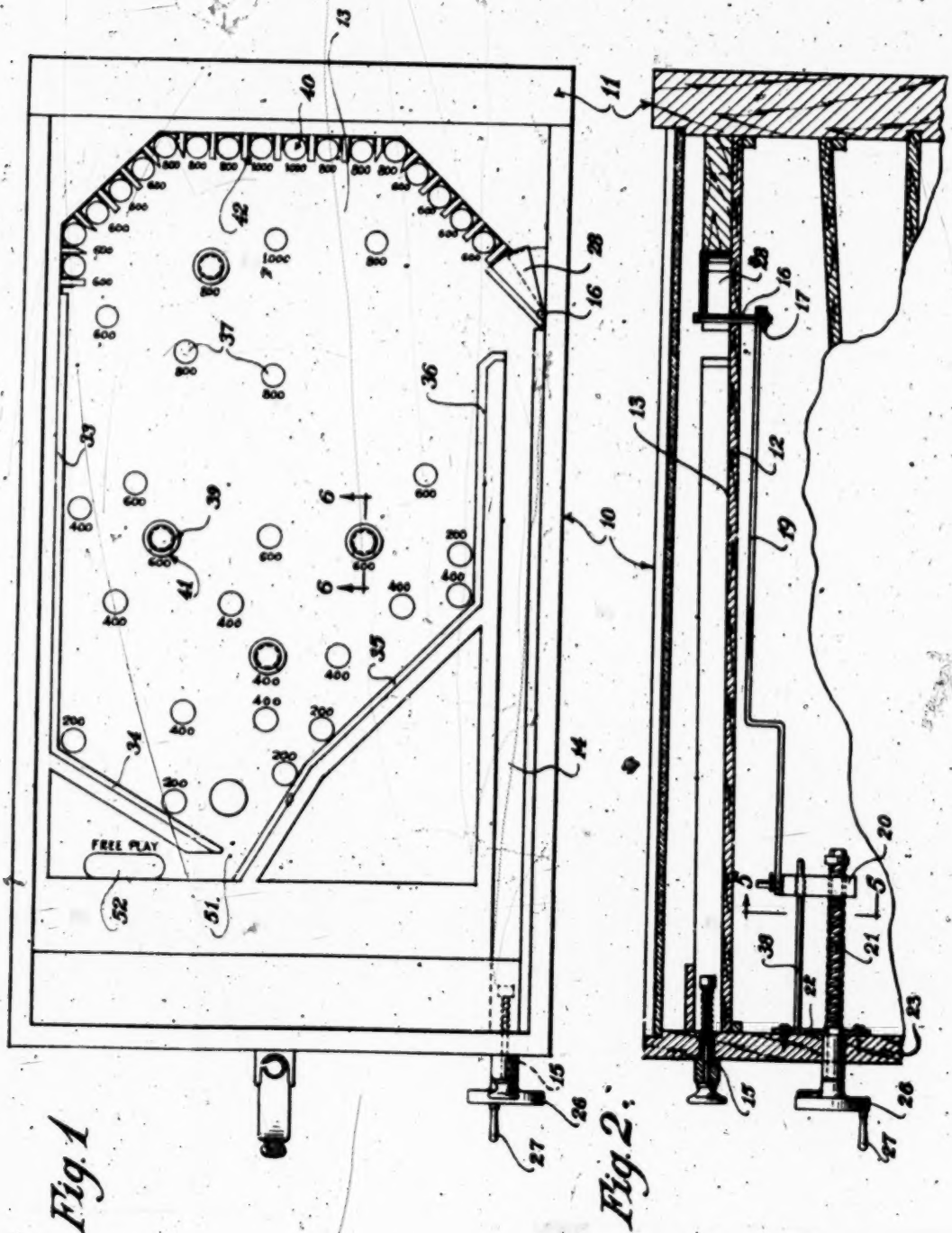
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April 14, 1936.

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GAME APPARATUS
Filed Feb. 15, 1934

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2 Sheets-Sheet 1



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GAME APPARATUS

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2 Sheets-Sheet 2

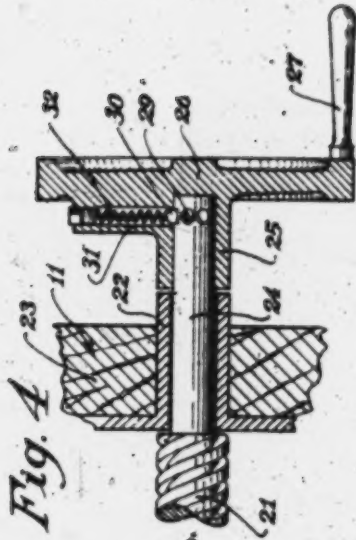


Fig. 4

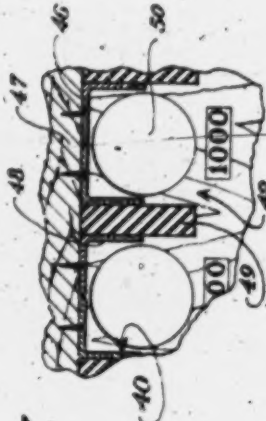


Fig. 7

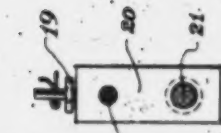


Fig. 5

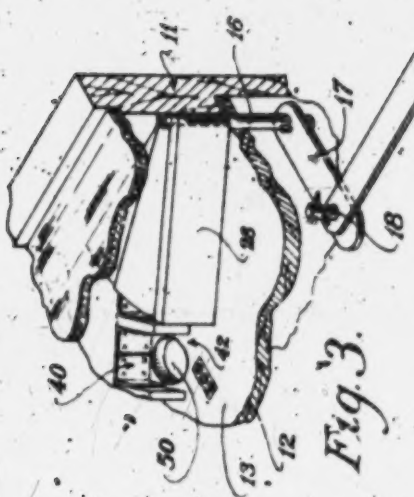


Fig. 3

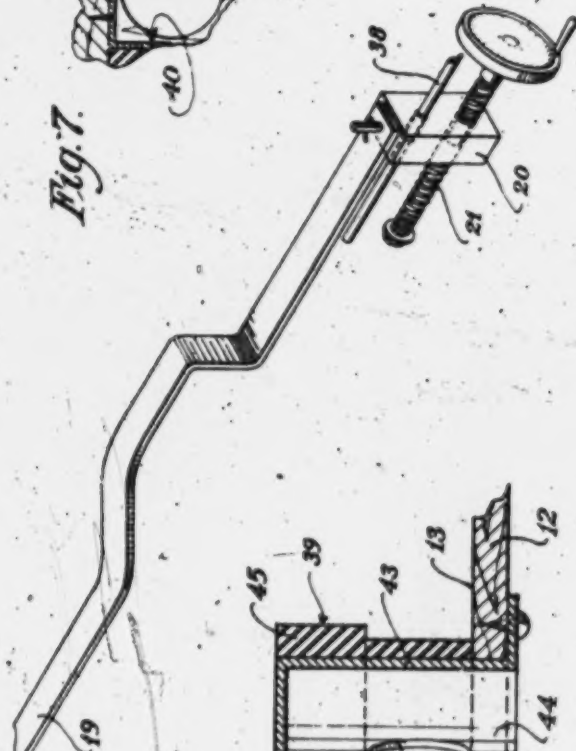
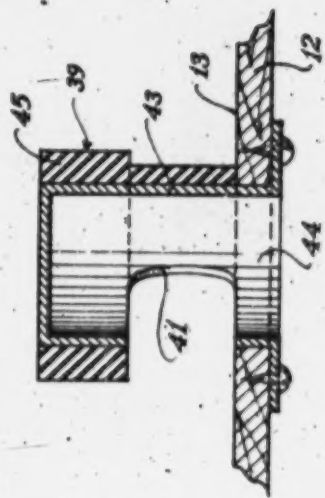


Fig. 6



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2,037,108

GAME APPARATUS

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4 Claims. (Cl. 273-121)

This invention relates to game apparatus.

It is an object of this invention to provide an improved game apparatus which is relatively simple and inexpensive in construction and efficient in use.

Another object of the invention is to provide a game apparatus comprising the combination of a member providing a ball playing surface provided with ball-receiving scoring elements or pockets; a ramp for conducting the balls onto the playing surface toward one end thereof; means for projecting the balls one at a time along the ramp onto the playing surface; resilient rails or cushions defining marginal edges of said playing surface; a ball-deflecting member arranged in the path of travel of the balls from the ramp onto the playing surface; and means for positioning the said ball-deflecting member in any preselected one of various positions so as to deflect the balls one at a time at various preselected points on said cushions so as to carom the balls from the latter into preselected ones of said ball-receiving elements or pockets.

An additional object of the invention is to provide an amusement game apparatus requiring much of the knowledge of angles required in playing billiards.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings, showing the preferred form of construction and in which:

Fig. 1 is a top plan view of a game apparatus embodying a preferred form of the invention;

Fig. 2 is a longitudinal, vertical sectional view of the structure shown in Fig. 1;

Fig. 3 is a perspective detail view, partly in section, illustrating a preferred form of the ball-deflecting member and means for adjustably positioning the same;

Fig. 4 is a sectional detail view on line 4-4 in Fig. 3;

Fig. 5 is a sectional detail view on line 5-5 in Fig. 2;

Fig. 6 is a sectional detail view on line 6-6 in Fig. 1 showing one of the ball-receiving elements or pockets; and

Fig. 7 is a sectional detail view showing another form of ball-receiving element or pocket.

A preferred form of the new game apparatus is illustrated in the drawings, being generally indicated therein at 10, and comprises a cabinet 11 which includes a member 12 providing an in-

clined ball playing surface 13. This member 12 is provided with ball exit scoring openings 37. Leading onto the playing surface 13, toward one end thereof, is a ramp 14, and arranged at the lower end of the ramp for propelling balls one at a time therealong up onto the playing surface 13 is a ball-projecting device 15.

Arranged in the path of travel of the balls as they travel from the ramp 14 onto the playing surface 13 is a ball-deflecting member 20, which is pivotally mounted above the playing surface 13 upon a vertical supporting post 16 (Fig. 3) for movement over the underlying portion of the playing surface 13. This ball deflector 20 is preferably made in the form of a block of rubber or other resilient material.

Attached to the supporting post 16 (Fig. 3) at the lower end of the latter and below the inclined member 12 which provides the playing surface 13, is a link 17 and pivotally connected to this link 17, as at 18, is one end of a relatively long horizontal bar 19 (Fig. 3) which extends below the playing surface 13 (Fig. 2) toward the lower end of the latter.

Attached to that end of the bar 19 that is opposite the end attached to the link 17 is a follower 20 which is threaded into a horizontal operating screw 21. This follower 20 is prevented from turning and is guided in its movement by a guide rod 30. This operating screw has an unthreaded end portion 24 that is rotatably mounted in a bearing sleeve 22 (Fig. 4). This bearing sleeve 22 is mounted in a vertical end wall 23, of the cabinet 11, which is arranged at the lower end of the playing surface 13.

Rotatably mounted upon the unthreaded end portion 24 of the operating screw 21 is a flanged extension 25 of a disc 26 which is arranged exteriorly of the cabinet 11, adjacent the wall 23 thereof, and below the ball projecting device 15. This disc 26 carries an operating handle 27.

The flanged disc 26 has a pressure release or so-called slip connection with the unthreaded end portion 24 of the operating screw 21. This slip connection comprises an annular row of cup-shaped sockets or indentations 29 formed in the screw portion 24. These sockets 29 are adapted for selective latching engagement with a ball 30 that is arranged, with its urging spring 32, in a groove 31 that is formed in the flanged extension 25 of the disc 26.

The engagement of the ball 30 in any one of the sockets 29, under the action of the spring 32, is sufficient to latch the sleeve 25 to the screw portion 24 so that the operating screw 21 may be

rotated by turning the handle 27 and disc 26, so as to cause the follower 20 to move axially along the screw 21. This movement of the follower 20 axially along the screw 21 causes the operating bar 19, link 17, and post 16 to move in correspondence therewith so that the ball deflector 28 may be adjusted or pivoted into any preselected one of various positions within its allowed range of movement upon the playing surface 13.

By so adjusting the ball deflector 28 the played balls may be projected up the ramp 14 by the ball projecting device 15 and engaged with the ball deflector 28 so as to be deflected thereby toward any preselected point on the relatively long resilient side rail or cushion 33 which defines one marginal edge of the playing surface 13; whereupon the played ball may gravitate down the playing surface 13 and drop through one of the ball exit scoring openings 37 formed in the member 12 for return to the ball projecting device 15 (by suitable means, not shown); or, the played ball may, depending upon the player's judgment of angles and skill in manipulating the deflector 28, be deflected from the rail or cushion 33 toward one of the shorter but similar rails 34, 35 and 36. These rails 33, 34, 35 and 36 are preferably made of rubber or analogous resilient material, after the manner of the side rails or cushions of billiard tables and are placed at angles relative to each other so that after the played ball engages the deflector 28 and is deflected thereby against the long rail 33 it will rebound or carom from the latter toward one or more of the side rails 34, 35 and 36 and, depending upon the skill of the player, be directed either into one of a series of ball-receiving pockets 39 (Fig. 6) arranged at intervals upon the playing surface 13 or into one of another group of ball-receiving elements or scoring pockets 40 which are arranged in a row at the upper end of the playing surface 13 (Figs. 1, 3 and 7).

By an examination of Figs. 1 and 6, and Figs. 3 and 7, it will be ascertained that the inlets or mouths 41 and 42 of the scoring pockets 39 and 40, respectively, open out upon the playing surface 13 toward the lower end of the latter so that in order to score a played ball into one of these pockets 39 or 40 the player must skillfully manipulate the ball deflector 28, with a proper understanding of angle play, that is familiar to all billiard players, so that the ball will be deflected by the member 28 toward the long rail or cushion 33 and thence rebound from the latter against one or more of the rails 34, 35 and 36 from which, in turn, the played ball may rebound up the inclined playing surface 13 into a preselected one of the scoring pockets 39 or 40; it being noted that the played balls can not be directly guided by the deflector 28 into any of the pockets 39 or 40 but must be directed into these pockets from the cushions or rails 33, 34, 35 and 36 by a skillful manipulation of the deflector 28 and a knowledge of the angle play involved in order to accomplish this end. For these reasons play upon the new game apparatus resembles, in many respects, the game of billiards.

Each of the scoring pockets 39 comprises an upright housing 43. These housings 43 are attached to the member 12 and open at their lower ends, as at 44 (Fig. 6) through the member 12 so as to discharge the balls therefrom below the playing surface for return to the ball-projecting device 15 (by means not shown). A resilient bumper 45 of rubber or analogous material surrounds each of the housings 43 except at the

inlets or mouths 41 of the same so as to deflect the balls striking the housings at points other than at the inlets 41 thereof.

The scoring pockets 40 are formed by an angled row of U-shaped frames 46 which are attached to an upright wall 47 arranged at the upper end of the playing surface 13. The parallel side walls 48 of these frames 46 are spaced by members 49 which define the inlets 42 to the pockets 40. These members 49 may well be made of resilient material such, for example, as rubber or the like, or other suitable material so as to deflect the balls away from the inlets thereto and make it more difficult to score the balls in the pockets 40.

After entering the pockets 40 the balls fall therefrom through exit openings 50 formed in the member 12, one at the bottom of each pocket 40, for return to the ball projecting device or plunger 15 (by means not shown).

If the player attempts to force the deflector 28 beyond the limit of its travel or operates the disc 26 and its handle 27 violently, the consequent rotation of the operating screw portion 24 will force the latch ball 30 out of its socket 29 against the action of the spring 32 and thereby operatively disconnects the sleeve 25 and operating screw 24—21 and thus prevents rotation of the operating screw 21 and movement of the follower 20, operating bar 19, and ball deflector 28.

The cushions or rails 34—36 may be spaced at their lower ends, if desired, as at 51 (Fig. 1) so as to provide access for the balls to a free play opening 52.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precised details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

1. In a game apparatus: a cabinet including a member providing an inclined playing surface and said member having ball exit scoring openings therein; a ramp extending along one marginal edge of said playing surface; means for propelling balls one at a time through said ramp onto the upper portion of said playing surface so that they may gravitate thereover and enter into said exit openings; a ball-deflecting member movably mounted upon said playing surface in the path of balls emerging from said ramp; and means for positioning said ball-deflecting member at different times in various positions so as to deflect balls therefrom at preselected ones of said exit openings; said second-named means including a member adjustably mounted in a wall of said cabinet and having a handle portion disposed exteriorly thereof; said second-named means including a member slidably mounted in said cabinet below the said playing surface; said slidable member having an operative connection at one end with said ball-deflecting member and having an operative connection at its other end with said adjustable member.

2. In a game apparatus: a cabinet including a member providing an inclined playing surface and said member having ball exit scoring openings therein; a ramp extending along one marginal edge of said playing surface; means for

propelling balls one at a time through said ramp. into the upper portion of said playing surface so that they may gravitate thereover and enter into said exit openings; a ball-deflecting member movably mounted upon said playing surface in the path of balls emerging from said ramp; means for positioning said ball-deflecting member at different times in various positions so as to deflect balls therefrom at preselected ones of said exit openings; said second-named means including a screw member adjustably mounted in a wall of said cabinet and having a handle portion disposed exteriorly thereof; said second-named means including a follower mounted for movement axially along said screw member; and a member slidably mounted in said cabinet having an operative connection at one end with said ball-deflecting member and having an operative connection at its other end with said follower.

3. In a game apparatus: a cabinet including a member providing an inclined playing surface; a ramp extending along one marginal edge of said playing surface; means for propelling balls one at a time along said ramp onto the upper portion of said playing surface so that they may gravitate thereover; a ball deflecting member arranged upon the upper portion of said playing surface in the path of balls emerging from said ramp; and means for moving said ball-deflecting member at different times into various preselected positions; said second-named means

comprising a screw member adjustably mounted in a wall of said cabinet and having a handle portion projecting exteriorly thereof adjacent the lower end of said playing surface; a follower mounted for axial movement along said screw member; and a slidable member movably mounted in said cabinet below said playing surface; said slidable member having an operative connection at one end with said follower and having an operative connection at its other end with said ball-deflecting member.

4. In a game apparatus, a cabinet including a member providing an inclined playing surface; a runway extending along one marginal edge of said playing surface; means for propelling balls one at a time along said runway onto the upper portion of said playing surface so that they may gravitate thereover; a ball deflecting member arranged upon the upper portion of said playing surface in the path of balls emerging from said runway; means for moving said ball deflecting member into various preselected positions; said means comprising a member adjustably mounted in a wall of said cabinet below the playing surface and having a handle portion projecting exteriorly of the cabinet adjacent the lower end of the playing surface; and means in said cabinet below the playing surface and operatively connecting said ball deflecting member with said adjustable member.

ARCHIE BECHTOL

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June 2, 1936.

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2,042,786

GAME APPARATUS

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3 Sheets-Sheet 1

Fig. 1.

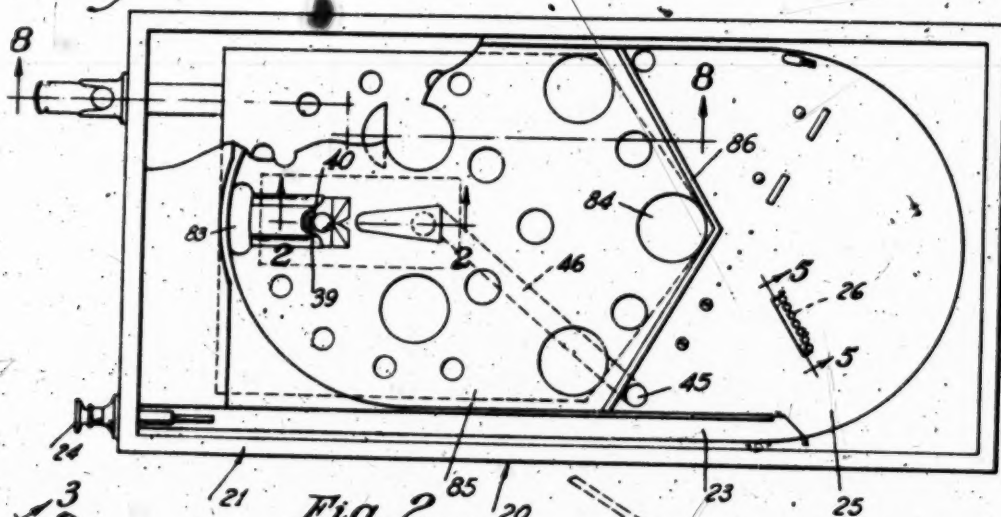


Fig. 2.

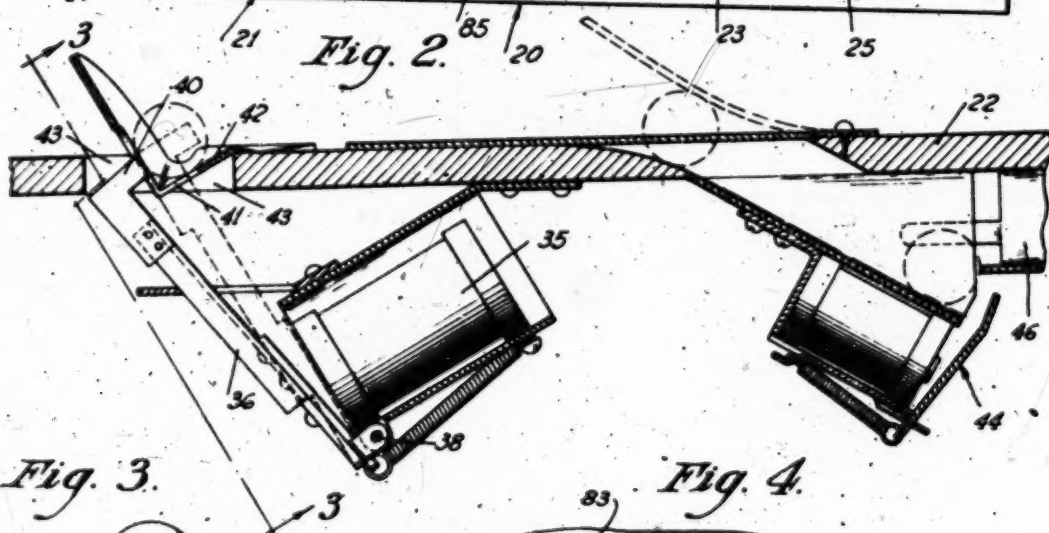


Fig. 3.

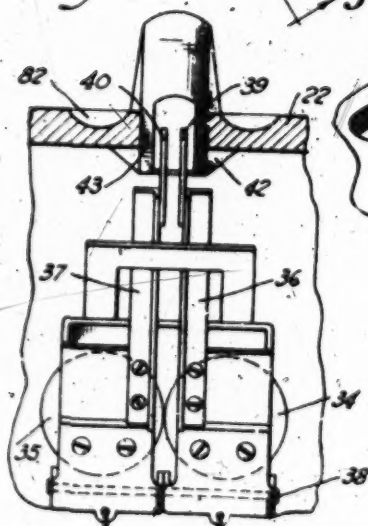
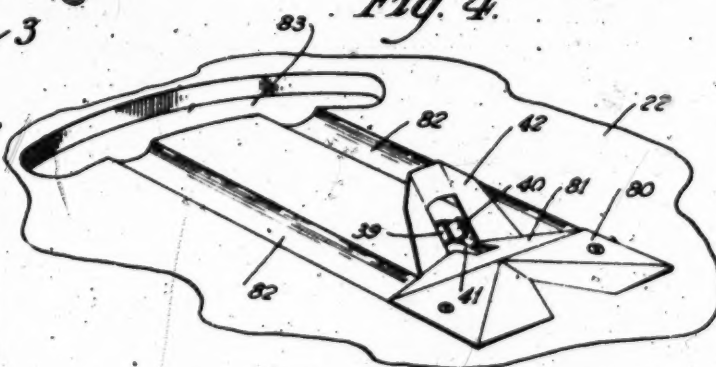


Fig. 4.



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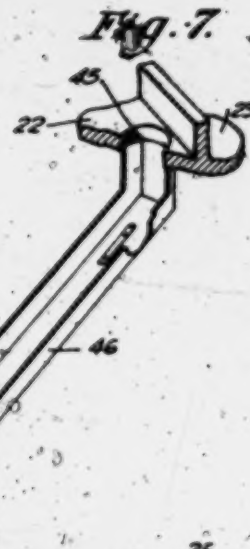
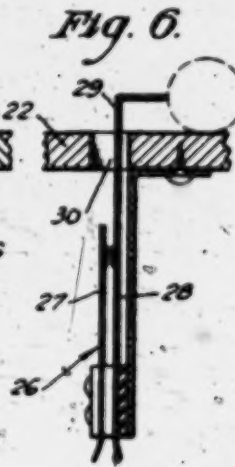
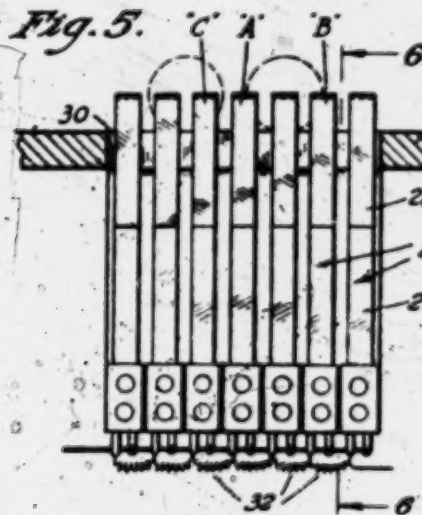
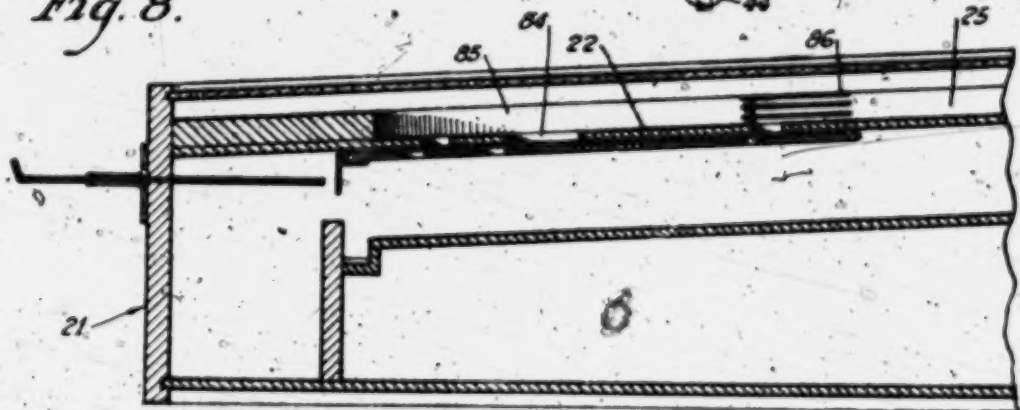
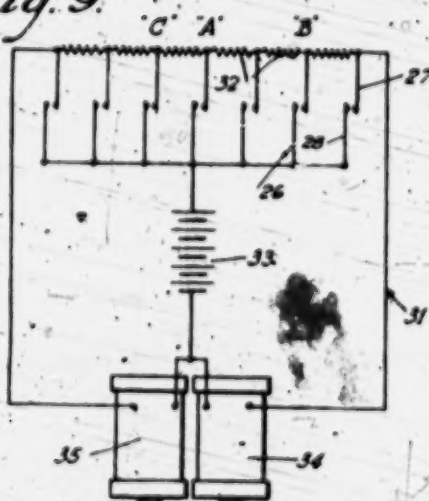
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*Fig. 8.**Fig. 9.**Fig. 15.*INVENTOR
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Fig. 10.

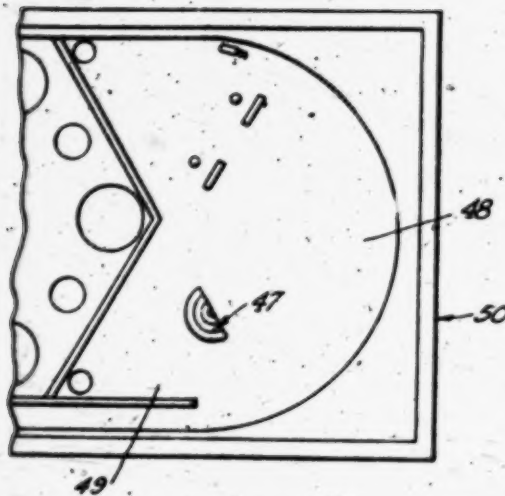


Fig. 11.

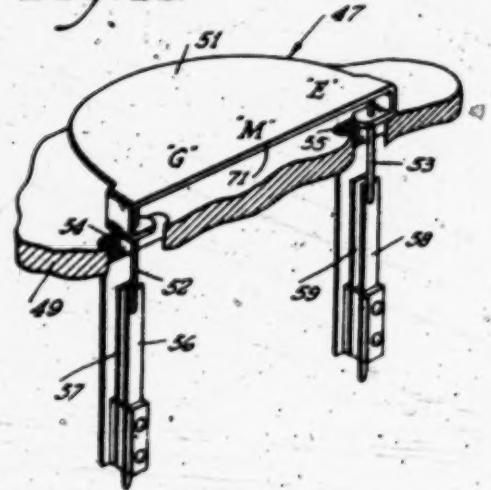


Fig. 12.

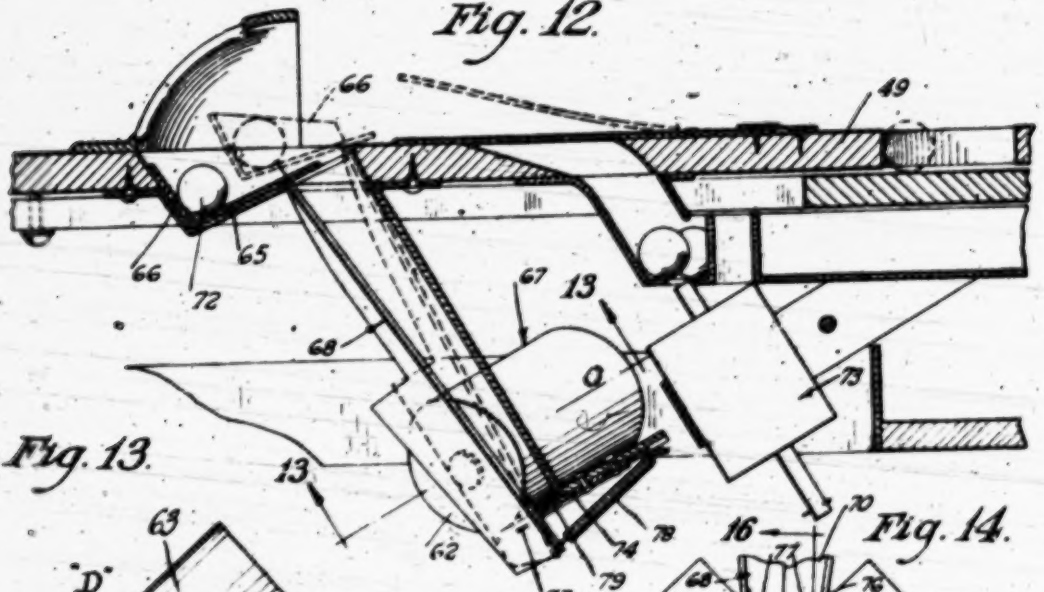


Fig. 13.

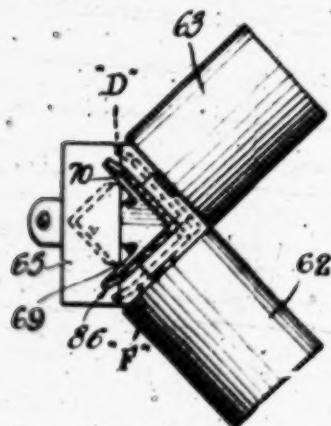


Fig. 14.

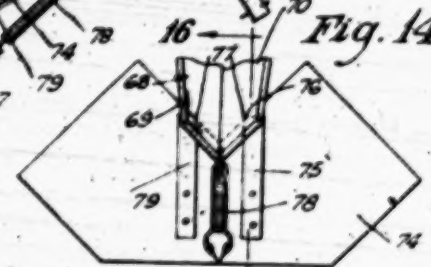
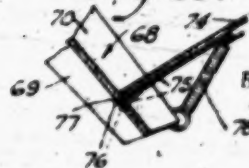


Fig. 16.



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2,042,786

GAME APPARATUS

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Application June 12, 1935, Serial No. 26,097

5 Claims. (Cl. 273—121)

This invention relates to a game apparatus.

It is an object of this invention to provide an improved game apparatus which is relatively simple and inexpensive in construction and efficient in use.

An additional object of the invention is to provide a variable direction ball propelling or reprojecting device for a game apparatus of the so-called pin and marble game type.

Another object of the present invention is to provide a novel device for reprojecting a ball up the inclined playing board, that is, over the playing surface of a game apparatus of the pin and marble game type, in such a manner that the ball may travel either in a direction parallel to the long axis of the inclined playing board or to the long axis of the inclined playing board or at an angle relative thereto.

A further object of the invention, ancillary to the foregoing object, is to construct the aforementioned reprojecting device in such a manner that the direction of travel of the reprojecting ball, that is, whether the reprojected ball travels in a line parallel to the long axis of the inclined playing board or at an angle relative thereto is dependent upon the engagement of a ball, propelled up the inclined playing board, with a predetermined one of a group or bank of circuit-closing contacts or "targets" which are arranged upon the playing surface.

A further object of the invention is to construct the same in such a manner that the direction of travel of the reprojected ball is dependent upon the particular part of the "target" or contact with which a ball propelled onto the playing surface of the apparatus may engage.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings, showing a preferred form of construction and in which:

Fig. 1 is a top plan view of a game apparatus embodying a preferred form of the present invention;

Fig. 2 is a sectional view, on line 2—2 in Fig. 1, showing a preferred form of the new ball-reprojecting device;

Fig. 3 is a rear elevational view of a preferred form of a ball-reprojecting device, on line 3—3 in Fig. 2;

Fig. 4 is a fragmentary perspective view of a part of the top of the game board disposed adjacent the ball-reprojecting device, and showing

a preferred form of the ball-reprojecting device associated therewith;

Fig. 5 is a sectional view, on line 5—5 in Fig. 1, showing a preferred form of the circuit-closing device or "target" embodied in the invention;

Fig. 6 is a sectional view, on line 6—6 in Fig. 5, showing one of the circuit-closing switches or "targets" shown in Fig. 3;

Fig. 7 is a perspective detail view of a ball return runway embodied in the new apparatus;

Fig. 8 is a vertical sectional view on line 8—8 in Fig. 1;

Fig. 9 is a schematic wiring diagram of a preferred form of electric circuit embodied in the invention;

Fig. 10 is a fragmentary top plan view of a game apparatus embodying a modified form of the invention;

Fig. 11 is a perspective detail view of a circuit closing device or "target" embodied in the modified form of the invention, which is shown in Figs. 10 to 16 inclusive;

Fig. 12 is a vertical sectional view showing a modified form of the ball-reprojecting device which is embodied in the modified form of the invention, shown in Figs. 10 to 16 inclusive with certain of the parts omitted;

Fig. 13 is a sectional view on line 13—13 in Fig. 12;

Fig. 14 is a bottom plan view showing certain parts of the modified form of the invention shown in Figs. 10 to 16 inclusive;

Fig. 15 is a diagrammatic view of an electric circuit embodied in the modified form of the invention, shown in Figs. 10 to 16 inclusive; and

Fig. 16 is a sectional detail view, on line 16—16 in Fig. 14.

A game apparatus embodying a preferred form of the present invention as shown in Figs. 1 to 9 inclusive, is therein generally indicated at 20, and comprises a cabinet 21 which includes an inclined playing board 22. Arranged in the cabinet 21 at one side of the inclined playing board 22 is a ball runway or ramp 23 and arranged at the lower end of the ball runway or ramp 23 is a propelling device or plunger 24 by means of which balls may be propelled, one at a time, onto the upper area or portion of the inclined playing board 22; the inclined playing board 22 being divided by a partition or wall 25 into an upper playing area 26 and a lower playing area 27. (Fig. 1).

Arranged upon the inclined playing board 22, in the upper area 26 thereof, is a group or bank of ball-actuated circuit closing devices or "tar-

gets", one of which is generally indicated at 26, (Figs. 1, 5, and 6).

Each of the circuit-closing devices or targets 26 includes a pair of normally spaced contact members 27 and 28, (Fig. 6), and the contact member 28 which is embodied in each of the circuit-closing devices 26, has a portion 29 which projects upwardly through an opening 30 which is formed in inclined playing board 22, (Fig. 6).

The circuit-closing devices 26 are arranged or embodied in a Wheatstone bridge electric circuit 31, (Fig. 9), which includes a group of resistance units 32 which are connected in a series circuit 31, (Fig. 9). This circuit 31 also includes a suitable source of electric energy 33 and a pair of electromagnets 34—35.

Associated with the electromagnets 34 and 35 are two ball propelling or re-projecting members 36 and 37, respectively, these re-projecting members 36 and 37 being pivotally mounted at their lower ends, as at 38, (Fig. 2), and have angled upper end portions 39 and 40, respectively, (Figs. 2 and 3). These angled upper end portions 39 and 40 of the re-projecting members 36 and 37 work in a slot 41 which is provided in a ball seat 42 which is arranged in an opening 43 which is provided in the inclined playing board 22 in the lower area 85 thereof.

When a ball propelled onto the upper area 25 of the inclined playing board 22 engages the upwardly extending portion 29 of one of the contacts 28 it pivots the latter, (Fig. 6), into engagement with the corresponding contact 27, thereby closing the circuit 31 to the electromagnets 34 and 35, (Fig. 9), and it will be noted that the relative strength of the current which flows through the circuit 31 to each of the electromagnets 34 and 35; that is, the relative electromagnetic forces set up in the electromagnets 34 and 35, when a played ball engages one of the contact members or "targets" 26 and 29, depends upon the relative position of the particular circuit-closing device or "target" 26—29, against which the played ball engages, in the bank or group of the same, (Fig. 5), and the consequent amount of resistance offered to the flow of current through the circuit 31 to the electromagnets 34 and 35, and the total number of resistance units 32 which the current has to pass through before entering the electromagnets 34 and 35, (Fig. 9).

Thus, for example, assuming that a played ball engages the particular contacts 26—29 which is located at position "A", (Fig. 9): In this event approximately the same amount of resistance will be offered to the passage of the current through the circuit 31 to both electromagnets 34 and 35, since the contacts 26—27—28 which are arranged at position "A", (Fig. 9), are disposed midway between the ends of the bank of resistance units 32, and hence the electromagnets 34 and 35 will be correspondingly actuated, that is, substantially equal electromagnetic forces will be set up in both electromagnets 34 and 35. Consequently, the electromagnetic forces applied by the electromagnets 34 and 35 to the ball-reprojecting members 36 and 37 will be substantially equal, and a ball disposed upon the ball seat 42 will be engaged with substantially the same force by the upwardly extending portions 39 and 40 of both reprojecting members 36 and 37, and hence the ball disposed upon the seat 42 will be reprojected off from the same up the inclined playing board 22 in a line substantially parallel to the long axis of the inclined playing board 22; it being noted that during this operation the ball thus repro-

jected travels aerially, above the inclined playing board 22 and is projected into one of the ball-receiving pockets or exit openings 84 which are provided in the inclined playing board 22, in the lower playing area 85 thereof.

However, assuming that the played ball engages the contact units 26—27—28 which is located at position "B", (Fig. 9): In this event less resistance will be offered to the passage of the current through the circuit 31 to the electromagnet 34 than will be offered to the passage of current through the circuit 31 to the electromagnet 35, and hence the electromagnetic force set up in the electromagnet 34 will be greater than that set up in the electromagnet 35. Accordingly, the electromagnetic force applied by the electromagnet 34 to the reprojecting members 36—39 will be greater than that applied by electromagnet 35 to the reprojecting members 37—40 and hence the ball disposed upon the seat 42 will be struck with greater force by the reprojecting members 36—39 than it will by the reprojecting members 37—40 and hence the ball will be reprojected up off from the seat 42 over the inclined playing board 22 at an angle relative to the long axis of the playing board 22 (from left to right and toward the top of the sheet, as seen in Fig. 1).

On the other hand, assuming that the played ball engages the contact units 26—27—28—29 which is located at position "C", (Fig. 9): In this event there will be less resistance offered to the passage of the current through the circuit 31 to the electromagnet 35 than will be offered to the passage of the current through the circuit 31 to the electromagnet 34 and hence the electromagnetic force set up in the electromagnet 35 will be greater than that set up in the electromagnet 34.

Accordingly, the electromagnetic force applied by the electromagnet 35 to the reprojecting members 37—40 will be greater than that applied by the electromagnet 34 to the reprojecting members 36—39, and hence the ball disposed upon the seat 42 will be reprojected therefrom up the inclined playing board 22 at an angle relative to the long axis of the inclined playing board 22, (left to right and toward the bottom of the sheet, (Fig. 1).

It is to be noted that a ball propelled into the upper area 25 of the inclined playing board 22 may successively engage a plurality of the "targets" 26, that is, such a ball may strike the upwardly extending portion 29 of one or more of the other contacts 27—28, thereby successively closing the switches 26—27—28 and 29 and thus rapidly and successively closing the circuit 31 through the corresponding resistance units 32, and in this manner rapidly varying the angle at which a ball will be reprojected over the lower area 85 of the inclined playing board 22 by the reprojecting device 68. By reason of this fact, the range, that is, the number of possible angles at which a ball may be reprojected over the inclined playing board 22 by the ball-reprojecting device 68 is not limited to the exact number of resistance units 32, and the corresponding number of switches 26—27—28—and 29, which are embodied in the circuit 31, since when a played ball engages a plurality of the contacts 27—28, as above set forth, a variable, or rapidly varying, resistance is, in effect, set up in the circuits 31—32, etc., and the angle at which the ball will then be reprojected over the inclined playing board 22 is thus incapable of exact determination and may vary within a considerable range.

The particular means by which balls are conducted or elevated to the ball seat 42 from a point below the same, forms no part of the present invention. However, an elevating device, is shown in the drawings (Fig. 3), and is herein generally indicated at 44, it being understood that by means of this device balls may be elevated, one at a time, up onto the inclined playing board 22 from a point below the same, so that they may gravitate thereover and enter into the ball seat 42.

In the use of a ball elevating device, such as that indicated 44, the spent balls are conducted from an exit opening 46 which is formed in the upper area 28 of the inclined playing board 22, to the ball-elevating device 44 by means of a ball return runway 48, (Figs. 1 and 7). However, it is to be understood that this arrangement is no way essential to the present invention.

Arranged upon the inclined playing board 22 in front of the ball reprojecting devices 38-40, (Fig. 4), is a notched inclined approach 80, and in the event that there is a ball disposed upon the ball seat 42, and another ball runs down the inclined playing board 22 toward the reprojecting devices 38-40, it will roll by gravity through the notched portion of the approach 80 into engagement with the ball which is already disposed on the ball seat 42 and will be deflected by the last-named ball down one of the inclined surfaces 81 of the approach 80 into one of the runways 82, (Fig. 4), which are formed in the inclined playing board 22, and will travel down the same into the "out" opening 83, (Fig. 4).

A modified form of the invention is shown in Figs. 10 to 16 inclusive.

In this modified form of the invention a circuit-closing device, generally indicated at 47, (Figs. 10 and 11), is mounted upon the upper area 48 of the inclined playing board 49 which is arranged in the cabinet 50. This circuit-closing device 47 comprises a substantially semi-circular plate or "target" 51, (Fig. 11), which includes an edge or surface 71 which is adapted to be engaged by balls propelled onto the upper portion of the inclined playing board 49, (Fig. 11). Attached to and depending from the plate or target 51 are two arms 52 and 53, which work in openings 54 and 55, respectively, which are provided in the inclined playing board 49, (Fig. 11).

Attached to the depending arm 52 of the "target" or contact plate 51 is a contact member 56, associated with this contact 56 is a contact 57. Attached to the arm 53 of the contact plate 51 is a contact member 58 and associated with the contact 58 is a contact 59. These contact members 56-59 and 57-59 are arranged in an electric circuit 60, (Fig. 15), which includes a resistance unit 61, two electromagnets 62 and 63, and a suitable source of current 64.

Arranged in the lower end portion of the inclined playing board 49 is a depression or pocket 66, (Fig. 12), and normally disposed in this depression or pocket 66 is a ball receptacle 68 which forms part of a ball propelling or reprojecting device, which is generally indicated at 67, (Fig. 12), and which includes the two electromagnets 62 and 63.

The ball receptacle is mounted upon the upper end portion of a carrier or supporting member 69 which includes two diverging arms 69-70, these arms 69-70 being formed together in a V-shaped formation, (Figs. 13 and 14).

When a ball propelled onto the upper area 48 of the inclined playing board 49 engages the edge

71 of the segmental contact plate 51 at a point substantially midway between the arms 52 and 53, (Fig. 11), the force applied by the impact of the ball against the edge 71 of the contact plate 51 will cause the arms 52 and 53 to move their respective contact members 56 and 58 simultaneously and thereby force the contact members 56 and 58 simultaneously into engagement with their respective contacts 57 and 59, thereby simultaneously closing the circuit 60, (Fig. 15), to both of the electromagnets 62 and 63. Consequently, the relative potentials of the current which will then flow through the circuit 60 to the electromagnets 62 and 63 will be substantially the same and the electromagnetic forces set up in the electromagnets 62 and 63 will be substantially equal. Accordingly, the electromagnetic forces applied by the electromagnets 62 and 63 to the diverging arms 69 and 70, respectively of the carrier or supporting member 69, are substantially equal so that both arms 69 and 70 of the carrier or supporting member 69 are attracted simultaneously, and at the same rate of speed, to their respective electromagnets 62 and 63; whereupon the ball carrier or receptacle 68 which is mounted upon the upper end portion of the supporting member 69 is moved (from full to dotted line position, Fig. 12) in a plane substantially parallel to the long axis of the inclined playing board 49, and the ball 72 disposed in the receptacle 68 is reprojected out of the latter up the inclined playing board 49 in a line substantially parallel to the long axis of the inclined playing board 49.

However, if, for example, the played ball strikes the edge 71 of the contact plate 51 at position "E", (Fig. 11), which is a point adjacent one end of the edge 71, the arm 53 will move the contact 58 carried thereby into engagement with the contact 59, thereby closing the circuit 60 to the electromagnet 62. When the switches 56-59 are thus closed current will also flow through the circuit 60 by way of the resistance 61 to the electromagnet 63, thereby causing the electromagnet 63 to attract the armature 70 of the reprojecting member 69 (Fig. 13) with relatively less force than that with which the electromagnet 62 attracts the armature portion 69 of the reprojecting member 69, thereby causing the reprojecting member 69 to pivot about its axis and thus reproject a ball up off from the seat or cup 66 up the inclined playing board 49 at an angle relative to the long axis of the latter.

Accordingly, the electromagnet 62 being thus energized, the electromagnet 62 will attract the arm 69 of the reprojecting members 69-70, thereby causing the ball receptacle or reprojecting member 68 to be moved, both forwardly (from full to dotted line position, Fig. 12) and laterally (from full line position to dotted line position "F", Fig. 13), thus causing the ball 72 (which is disposed in the ball receptacle or pocket 66) to be reprojected up the inclined playing board 49 at an angle relative to the long axis of the inclined playing board 49.

On the other hand, if, for example, the played ball strikes the edge 71 of the contact plate 51 at a point adjacent the opposite end of the edge 71, at position "G" (Fig. 11), the arm 52 will move the contact 56 into engagement with the contact 57, and thereby close the circuit 60 to the electromagnet 63, prior to the time the arm 53 moves the contact 58 into engagement with the contact 59, so as to close the circuit 60 to the electromagnet 62.

The electromagnet 63 will thus be energized and hence will attract the arm 70 of the ball-reprojecting member 68 (into dotted line position, "D", Fig. 13), and hence the reprojecting members 66-68 will be attracted by the electromagnets 63 and will thus be moved into reprojecting position (as in dotted lines, Fig. 12). In this manner the ball 72 which is disposed in the ball carrier or pocket 66 will be reprojected up the inclined playing board 49 at an angle relative to the long axis of the latter; it being noted that this last-named angle will be opposite to the angle at which the ball 72 will be reprojected when the played ball engages the edge 71 of the contact plate 51 at position "E", or at any other point on the opposite side of the center or midpoint of the edge 71. In other words, when a played ball engages the edge 71 of the contact plate 51 at its midpoint, (position "M", Fig. 11), the ball 72 which is disposed in the ball seat or receptacle portion 66 of the ball-reprojecting members 66-68-69-70-62-63, etc., will be reprojected up the inclined playing board in a direction substantially parallel to the long axis of the inclined playing board 49, whereas when a played ball engages the edge 71 of the contact plate 51 at either side of the midpoint "M", (Fig. 11), of the same the ball 72 which is disposed in the ball seat or receptacle portion of the ball-reprojecting units 66-68-62-63-69-70, etc., will be reprojected up the inclined playing board 49 at an angle relative to the long axis of the inclined playing board 49, depending upon which of the electromagnets 62 or 63 is actuated, as hereinbefore explained.

In the event that a played ball engages the edge 71 of the contact plate 51 at a point between the center and point "G", the contact 56 will engage its associated contact 57, thereby closing the circuit 60 to the electromagnet 63 and, subsequently, the contact 58 will engage the contact 59 and thereby close the circuit 60 to the electromagnet. In this event, the arm 70 of the reprojecting device 63 (into position "D", Fig. 13), and, subsequently, the arm 69 of the reprojecting member will be attracted by the electromagnet 62 (into position "F", Fig. 13), thus rapidly changing the angle at which the ball 72, which is disposed in the ball receptacle or cup 66, will be reprojected by the latter over the inclined playing board.

An action opposite to that above set forth takes place when a ball engages the edge 71 of the contact plate 51 at a point between the center "M" and the other end "E" of the edge 71, since in this event the contact 56 will engage the contact 59 and close the circuit 63 to the electromagnet 62, prior to the time that the contact 58 engages the contact 57 and closes the circuit 60 to the electromagnet 63. Hence, in this event, the arm 69 of the ball-reprojecting device 63 will be attracted by the electromagnet 62 (from full to dotted line position, Fig. 12) prior to the time the electromagnet 63 is actuated, whereupon the electromagnet 63 when thus actuated, will attract the arm 70 of the ball-reprojecting device 63 (from full to dotted line position, into position "F", Fig. 12).

Arranged below the electromagnets 62 and 63, (Figs. 13 and 14), is a supporting bracket 74, (Fig. 14), and each having one end portion attached to this bracket 74 are two resilient members or flat leaf springs 75 and 76. The flat leaf spring 75 has an end portion 78 which projects into an opening 77 which is formed in the arm 70 of the ball reprojecting member 68, and a similar

arrangement is provided in connection with the resilient strip 76, (Fig. 14).

A spring 78 has one end attached to the lower end of the reprojecting member 68, (Figs. 14 and 16), and the other end of this spring 78 is attached to the bracket 74.

The spring 78 urges the carrier 66 in a direction (left to right, Fig. 12), to project the end portions 76 of the strips 75 and 76 into the openings 77 which are formed in the arms 69 and 70 of the reprojecting device 68, thereby holding the arms 69 and 70 of the reprojecting device in a position midway between the electromagnets 62 and 63, and in a position to reproject a ball 72 up the inclined playing board 49 in a direction substantially parallel to the long axis of the inclined playing board 49.

The particular means by which the ball 72 is elevated up onto the inclined playing board 49 so as to enter into the ball seat or receptacle portion 66 of the ball-reprojecting devices 66-68-69-70, etc., forms no part of the present invention, but a conventional elevating device is shown, for the purpose of illustrating a preferred environment of the invention, and such an elevating device is generally indicated at 73, (Fig. 12).

In the use of a game apparatus embodying the present invention the reprojected balls will not engage the transparent top of the cabinet (Fig. 8) by reason of the fact that the arc through which the balls are reprojected by the reprojecting devices 67-68, etc., is relatively short, (ending at its upper end with the rail 66, Fig. 1) compared to the length of the cabinet 21; and because of the additional fact that the transparent top of the cabinet is spaced sufficiently above the inclined playing board 22 to permit the reprojected balls to travel through their arc of movement thereunder.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

1. In a game apparatus, the combination of: a cabinet including an inclined playing board; a plurality of targets arranged upon said inclined playing board; means for propelling a ball onto the upper portion of said inclined playing board so that it may gravitate thereover and engage against one of said targets; and means actuated by the engagement of a ball against one of said targets for reprojecting a ball up said inclined playing board either in a direction substantially parallel to the long axis of the said playing board or at an angle relative thereto dependent upon the particular one of said targets which is engaged by the played ball.

2. In a game apparatus, the combination of: a cabinet including a member providing a ball playing surface provided with a plurality of targets; means for propelling a ball over said playing surface so that it may engage one of said targets; and means actuated by the engagement of a ball against one of said targets for reprojecting a ball over said playing surface either at an angle substantially parallel to an axis

playing surface or at an angle relative thereto dependent upon the particular one of said targets which is engaged by the played ball.

3. In a game apparatus, the combination of: a cabinet including a member providing a ball playing surface provided with a ball seat; a plurality of contact members or targets movably mounted upon said playing surface; means for propelling a ball over said playing surface so that it may engage one of said contact members or targets; a pair of ball-reprojecting members movably mounted in said cabinet and adapted to reproject a ball off from said seat over said playing surface; and means actuated by a ball engaging one of said contact members or targets for simultaneously operating said ball reprojecting members either at substantially the same relative speed against a ball disposed upon said seat or at different speeds depending upon the particular one of said contact members or targets which is engaged by the played ball.

4. In a game apparatus, the combination of: a cabinet including a member providing a ball

playing surface provided with a ball seat; contact means in said cabinet engageable by a ball propelled over said playing surface; and means including a device actuated by a ball engaging said contact means for reprojecting balls, at different times, off from said ball seat over said playing surface at various and different angles relative to an axis of said playing surface.

5. In a game apparatus, the combination of: a cabinet including a member providing a ball playing surface; a contact member or target movably mounted in said cabinet and having a surface engageable by balls traveling over said playing surface; and means including a device actuated by a ball engaging the said surface of said contact member or target for reprojecting balls, at different times, over said playing surface at various and different angles relative to a preselected axis of said playing surface depending upon the particular portion of, or point upon, the said surface of said contact member which is engaged by a ball propelled thereagainst.

DONALD E. HOOKER.

644

Jan. 8, 1935.

W. A. TRATSCH
AMUSEMENT GAME CABINET

Filed Oct. 29, 1934

Des. 9

Fig. 1.

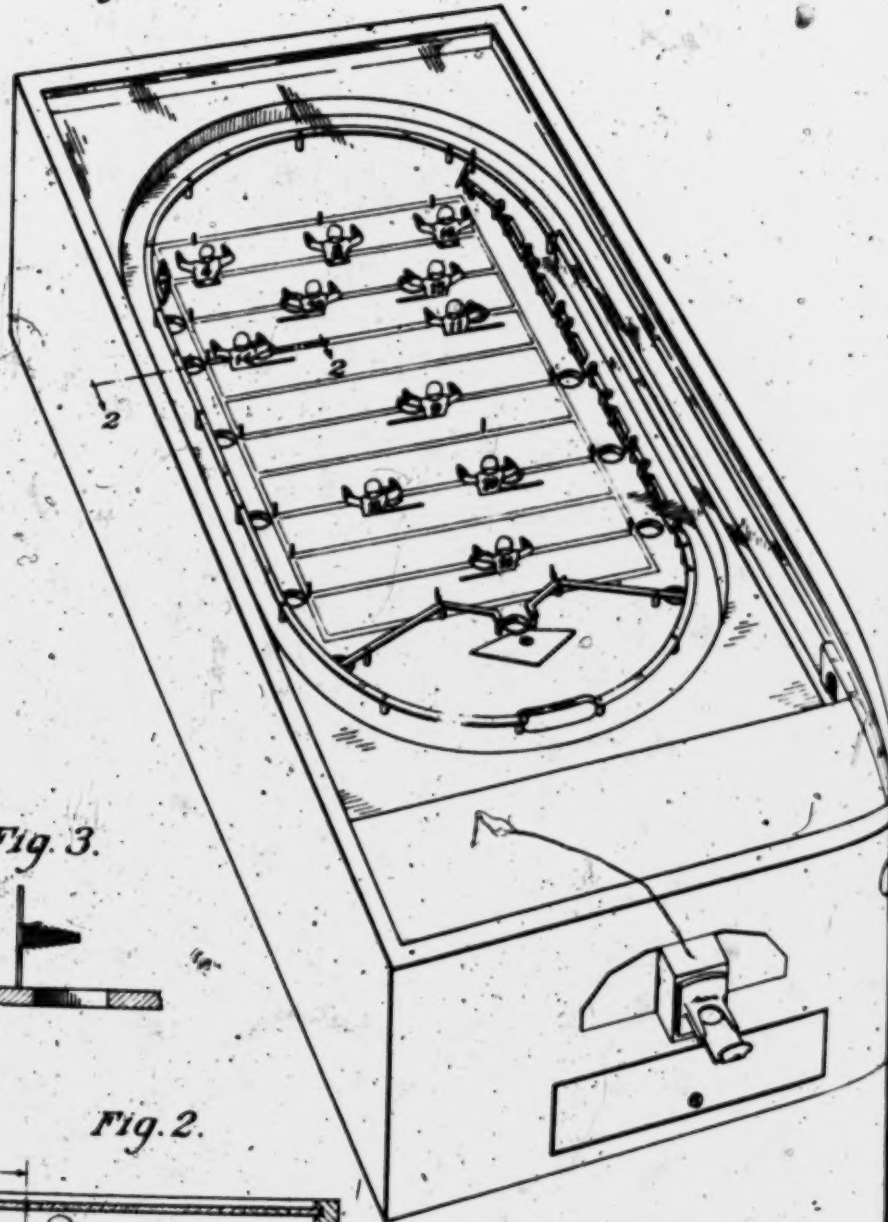
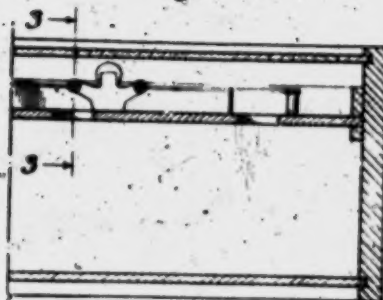


Fig. 3.



Fig. 2.



INVENTOR
Walter A. Tratsch

BY
Thredy and Son
HIS ATTORNEY

Patented Jan. 8, 1935

Des. 94,290
645

UNITED STATES PATENT OFFICE

94,290

DESIGN FOR AN AMUSEMENT GAME CABINET

Walter A. Tratsch, Chicago, Ill.

Application October 29, 1934, Serial No. 53,808

Term of patent $3\frac{1}{2}$ years

To all whom it may concern:

Be it known that I, Walter A. Tratsch, a citizen of the United States, residing at Chicago, in the county of Cook, and State of Illinois, have invented a new, original, and ornamental Design for an Amusement Game Cabinet, of which the following is a specification, reference being had to the accompanying drawing, forming part thereof, and in which:

Fig. 1 is a perspective view of an amusement game cabinet showing my new design;

Fig. 2 is a sectional detail view on line 2—2 in Fig. 1; and

Fig. 3 is a sectional detail view on line 3—3 in Fig. 2.

I claim:

The ornamental design for an amusement game cabinet as shown.

WALTER A. TRATSCH.

646

647

648

Jan. 8, 1935.

W. A. TRATSCH
AMUSEMENT GAME CABINET

Filed Oct 29, 1934

Des. 94

Fig. 1.

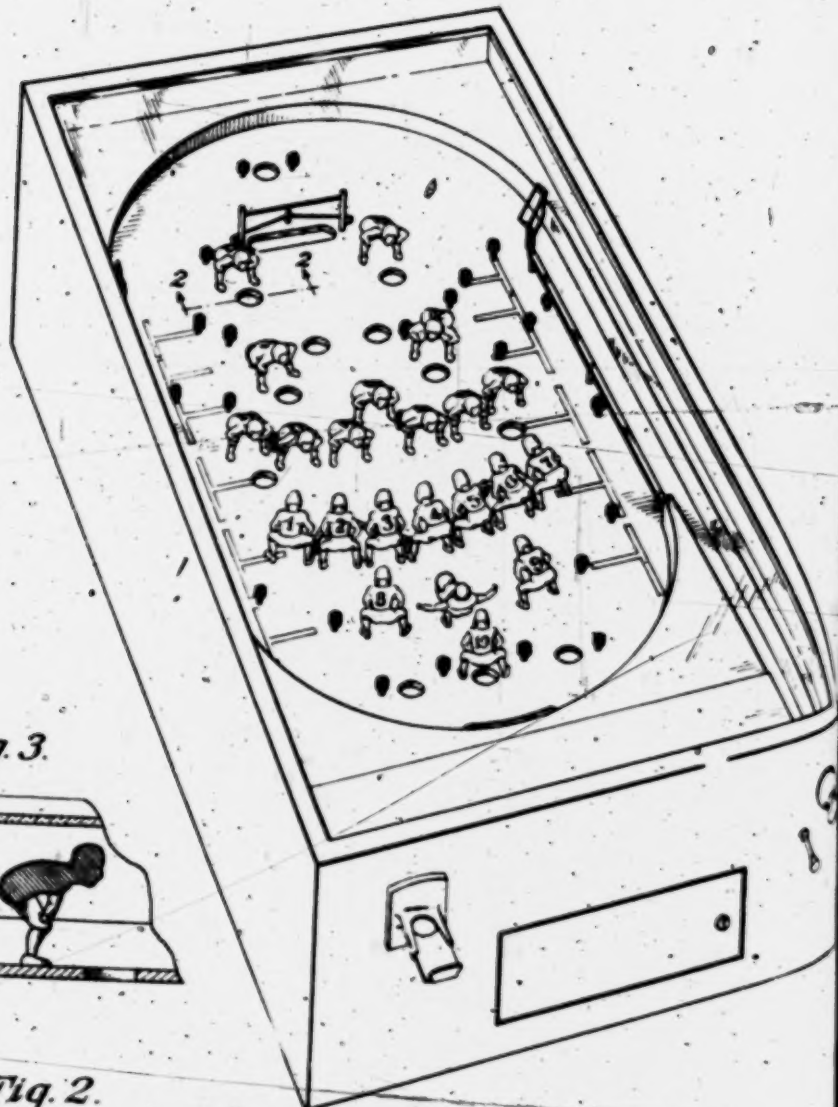


Fig. 3.

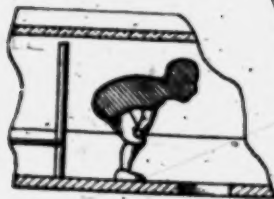
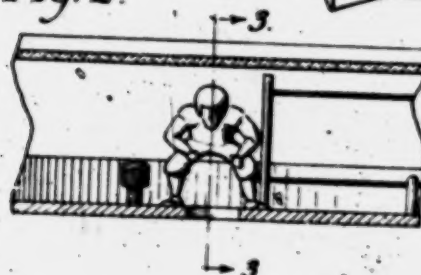


Fig. 2.



Walter A. Tratsch

BY

Thruddy
HI

Patented Jan. 8, 1935

Des. 94,291
649

UNITED STATES PATENT OFFICE

94,291

DESIGN FOR AN AMUSEMENT GAME CABINET

Walter A. Tratsch, Chicago, Ill.

Application October 29, 1934, Serial No. 53,809

Term of patent $3\frac{1}{2}$ years

To all whom it may concern:

Be it known that I, Walter A. Tratsch, a citizen of the United States, residing at Chicago, in the county of Cook, and State of Illinois, have invented a new, original, and ornamental Design for an Amusement Game Cabinet, of which the following is a specification, reference being had to the accompanying drawing, forming part thereof, and in which:

Fig. 1 is a perspective view of an amusement game cabinet showing my new design;

Fig. 2 is a sectional detail view on line 2—2 in Fig. 1; and

Fig. 3 is a sectional detail view on line 3—3 in Fig. 2.

I claim:

The ornamental design for an amusement game cabinet as shown.

WALTER A. TRATSCH.

650

Feb. 26, 1935.

W. A. TRATSCH
GAME BOARD
Filed Dec. 10, 1934

651

Des. 94,714

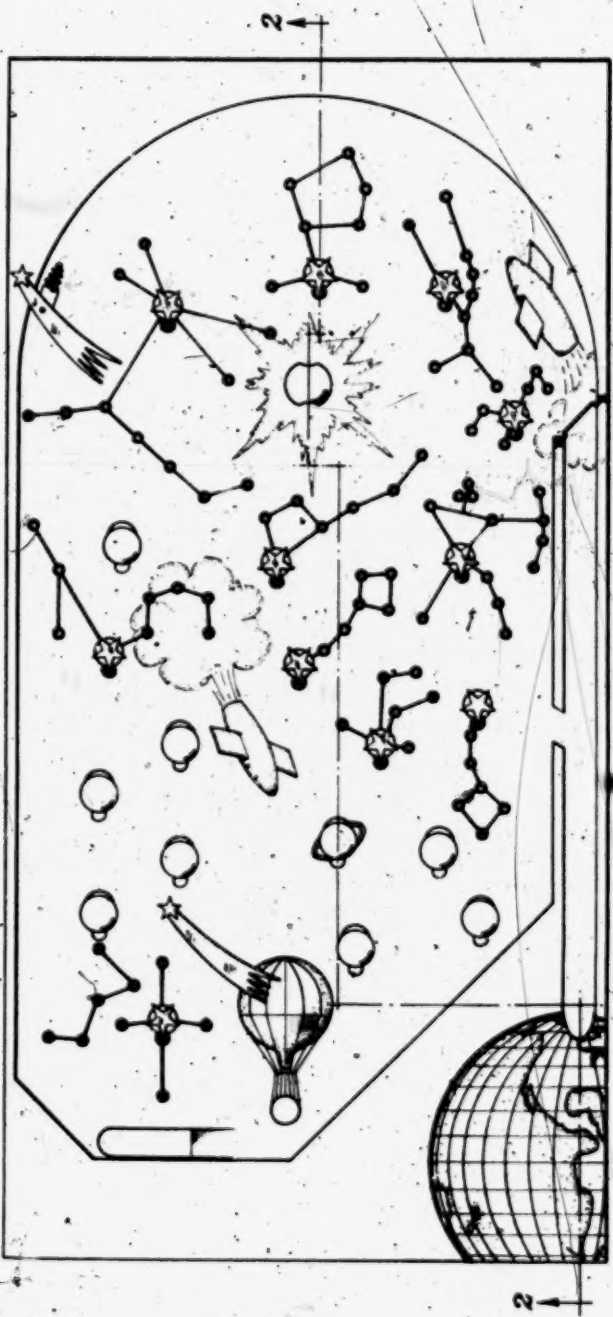


Fig. 1.



Fig. 2.

Walter A. Tratsch
INVENTOR.

BY *Thuddy and Cannon*
HIS ATTORNEYS.

652 Patented Feb. 26, 1935

Des. 94,7

UNITED STATES PATENT OFFICE

94,714

DESIGN FOR A GAME BOARD

Walter A. Tratsch, Chicago, Ill.

Application December 10, 1934, Serial No. 54,380

Term of patent $3\frac{1}{2}$ years

To all whom it may concern:

Be it known that I, Walter A. Tratsch, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new, original, and ornamental Design for a Game Board, of which the following is a specification, reference being had to the accompanying drawing forming part thereof, and in which:

Fig. 1 is a top plan view of a game board showing my new design; and

Fig. 2 is a sectional view of the same taken line 2-2 in Fig. 1.

I claim:

The ornamental design for a game board shown.

WALTER A. TRATSCH

OFFICE NATIONAL DE LA PROPRIÉTÉ INDUSTRIELLE.

BREVET D'INVENTION.

IX. — Matériel de l'économie domestique.

2. — SERRURERIE.

Avertisseur électrique à fonctionnement automatique.

M. LOUIS-JEAN DABOS résidant en France (Seine).

Demandé le 14 septembre 1921, à 15^h 00^m, à Paris.

Délivré le 27 avril 1922. — Publié le 22 juillet 1922.

N° 541.079

LIBRARY

JAN 4 - 1923

U. S. PATENT OFFICE

La présente invention a pour objet un avertisseur électrique à fonctionnement automatique pouvant être placé sur des portes, devantures, etc., et relié à un organe d'avertissement éloigné, tel que sonnerie, tableau annunciateur, relais, etc.; cet appareil comprend essentiellement deux conducteurs électriques flexibles constitués par exemple par des conducteurs enroulés en hélice, disposés concentriquement en ne laissant entre eux qu'un très faible espace annulaire, lesquels conducteurs sont reliés respectivement aux deux bornes d'une source d'électricité et sont montés sur un ou deux supports isolants de telle manière que leur déformation par désaivement ou flexion les met en contact, ce qui ferme le circuit de la source d'électricité et fait fonctionner l'organe d'avertissement éloigné.

La description qui va suivre en regard du dessin annexé, donné à titre d'exemple, fera bien comprendre la nature et les avantages de l'invention.

La fig. 1 est une élévation de face d'un appareil avertisseur établi conformément à l'invention.

La fig. 2 en est une coupe longitudinale.

La fig. 2^a en est une coupe longitudinale prise suivant un plan perpendiculaire à celui de la fig. 2.

La fig. 3 en est une vue en bout.

La fig. 4 en est une coupe transversale suivant 4-4 fig. 1.

La fig. 5 est une coupe longitudinale, analogue à la fig. 2, d'une variante d'exécution.

La fig. 6 montre le montage d'un appareil avertisseur sur une porte, de part et d'autre de la charnière, les pièces étant dans la position de repos.

La fig. 7 est une vue analogue, l'appareil étant en action.

La fig. 8 montre l'application de l'appareil comme avertisseur de bris de glace de devanture.

La fig. 9 montre l'application de l'appareil comme avertisseur d'incendie.

La fig. 10 montre le montage de l'appareil en haut d'une porte, en position de repos.

La fig. 11 est une vue analogue, l'appareil étant en action.

La fig. 12 montre l'application de l'appareil à un tableau.

Les fig. 13, 14 et 15 sont des détails du dispositif de la fig. 12.

Comme on le voit aux fig. 1 à 4, l'appareil objet de l'invention comprend essentiellement deux conducteurs a, b disposés concentriquement, séparés par un très faible espace annulaire, et constitués par exemple par des conducteurs enroulés en hélices de diamètres et de pas différents; le conducteur intérieur b pouvant être constitué par un simple fil. Ces

[541.079]

SERRURERIE.

conducteurs sont montés entre deux supports isolants c, c' ; le conducteur extérieur a se prolonge par une extrémité a' jusque vers l'extrémité d'un des supports c , où il est serré par une vis d qui sert à la fois à connecter le ressort a et à fixer le support c ; à l'autre extrémité, il prend appui contre l'autre support c' , par exemple dans une encoche e de ce support; le conducteur intérieur b aboutit à chacune de ses extrémités dans un canal ménagé dans chaque support, et il y est fixé au moyen de vis f, f' , respectivement, qui assurent en même temps (l'une d'elles ou les deux) la connexion avec le circuit.

Dans l'appareil de la fig. 5, dit « modèle combiné », le conducteur extérieur b aboutit également à son autre extrémité à une vis de connexion d' , qui est la vis assurant la fixation du support c' ; un certain nombre d'appareils de ce type peuvent être montés en série.

Comme on le voit fig. 6, les conducteurs a et b sont reliés, par l'intermédiaire des vis de contact et de pression d, f , respectivement aux deux bornes d'une source d'électricité; dans l'exemple représenté, le conducteur extérieur a est relié au pôle positif, et le conducteur intérieur b au pôle négatif. Le support c formant borne est fixé au chambranle g par la vis d et le support neutre c' est fixé de manière analogue, par la vis d' , au panneau h .

Dans la position de repos (fig. 6), le circuit est ouvert: si l'on ouvre la porte (fig. 7), la déformation des conducteurs flexibles les amène rapidement en contact l'un avec l'autre parce que l'espace annulaire qui les sépare est très faible. le circuit électrique est alors fermé, et cela met en action les organes avertisseurs auxquels l'appareil est relié: sonnerie, tableau annonciateur, relais, etc.

La fig. 8 montre l'application de l'objet de l'invention aux vitres de devantures; deux appareils avertisseurs A , de grande longueur et branchés en parallèles, sont disposés aux extrémités de la vitre, et, en raison de leur longueur, il convient de placer de distance en distance, entre les deux conducteurs concentriques, des dispositifs dits antivibrateurs formés par des rondelles percées j qui constituent des entretoises réduisant la longueur des parties pouvant fléchir et établir la fermeture d'un courant; lorsque la glace à protéger est de grande largeur, il est avantageux de

disposer des fils m tendus horizontalement, parallèles entre eux, à faible distance, et croisant perpendiculairement les avertisseurs A 55 placés vers le bord de la glace, en vue de permettre de réduire le nombre de ceux-ci; on comprend que si une personne malveillante tentait de briser ou de découper la glace, elle biterait fatalement contre un de ces fils qui toucherait les avertisseurs et les mettrait en action.

La fig. 9 montre la manière dont fonctionne l'appareil objet de l'invention comme avertisseur d'incendie; dans ce cas, c'est la chaleur 65 qui le met en action, car elle dilate surtout le conducteur intérieur b dont les spires sont plus serrées que celles du conducteur extérieur a ; par suite, le conducteur intérieur b se gondole, comme représenté, et ferme rapidement le circuit; il est avantageux de dis- 70 poser, entre les deux conducteurs, de la cire ou tout autre fusible isolant.

Les fig. 10 et 11 montrent une variante dans laquelle l'appareil comporte un seul support c , et sert d'avertisseur de porte; le support c est fixé au chambranle g , et l'ouverture 75 du panneau h a pour effet d'attaquer la base ou pointe i qui termine le conducteur extérieur a ; dans ce cas également, la déformation du système flexible a pour résultat de fermer 80 le circuit.

Le protecteur de tableau représenté fig. 12 est placé le long du mur derrière le tableau p à protéger; celui-ci est muni au bas du cadre, d'un collier q (représenté en vue de détail 85 perspective fig. 13) enveloppant le conducteur extérieur a sans le toucher. La borne ébonite c est fixée par deux pinces s, t représentées en détail respectivement aux fig. 14 et 15; cette borne c , cylindrique, est traversée longitudi- 90 nalement par le conducteur central b , fixé par une vis u servant en même temps de blocage sur la pince t . Le conducteur extérieur a est fixé sur un collet fileté r et y est ensermé par la pince s . Sous chaque pince est fixé un con- 95 ducteur venant de la source de courant.

Le même dispositif peut être appliqué à l'autre extrémité et être alimenté également par la même source d'électricité, afin de diminuer la grande résistance au passage du courant due à la grande longueur des fils.

Dès que l'on touchera au tableau dans n'importe quel sens, le collier q entraînera l'avertisseur et établira le contact.



SERRURERIE.

[541.079] 3

Dans toutes ses applications, l'appareil objet de l'invention présente divers avantages : il est simple, sensible, peu délicat et de pose très facile en général; en outre, il est inoxydable, durable; enfin, il est intéressant d'observer qu'il fonctionne encore en cas de rupture.

Il est bien entendu que les dispositions et les applications qui ont été indiquées à titre d'exemple, ne sont nullement limitatives et on peut y apporter des modifications sans en sortir du cadre de l'invention.

ANALYSE.

Cette invention porte sur un avertisseur électrique à fonctionnement automatique pouvant être placé sur des portes, devantures, etc., et relié à un organe d'avertissement éloigné tel

que sonnerie, tableau annonciateur, relais, etc., lequel appareil comprend essentiellement 20 deux conducteurs électriques flexibles constitués par exemple par des conducteurs enroulés en hélice, disposés concentriquement en ne laissant entre eux qu'un très faible espace annulaire, lesquels conducteurs sont reliés 25 respectivement aux deux bornes d'une source d'électricité et sont montés sur un ou deux supports isolants de telle manière que leur déformation par désaxement ou flexion, les met en contact, ce qui ferme le circuit de la 30 source d'électricité et fait fonctionner l'organe d'avertissement éloigné.

LOUIS-JEAN DABOS.

Pie présentée :

ANNOUËT JENNE.

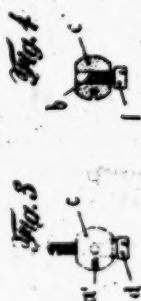
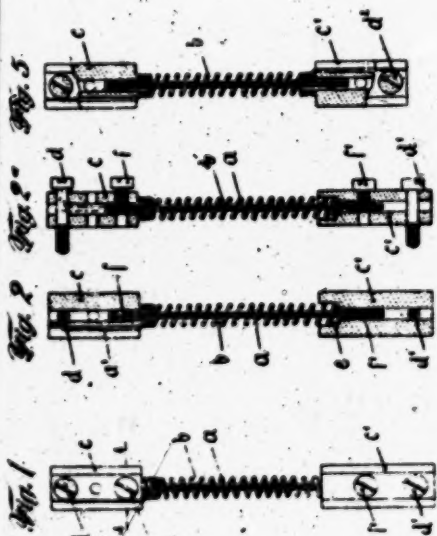


Fig. 8

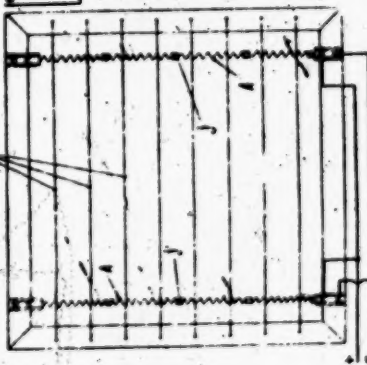


Fig. 10

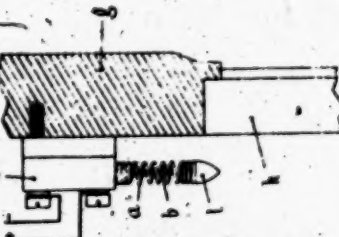


Fig. 11

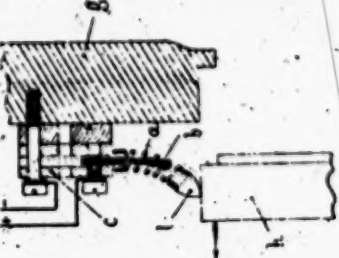


Fig. 7

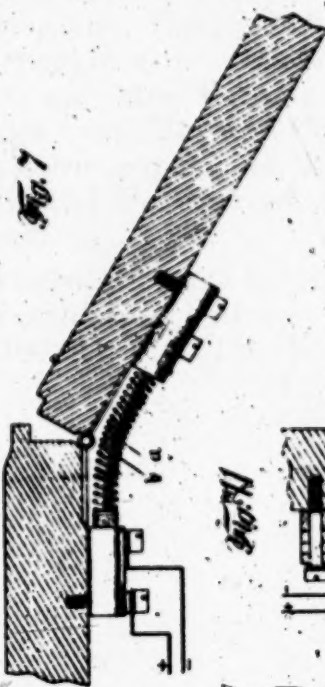


Fig. 9



Fig. 12



Fig. 13



Fig. 14



Fig. 15



Clerk's Certificate.

663

570 Northern District of Illinois, }
Eastern Division, } ss.

I, Hoyt King, Clerk of the District Court of the United States for the Northern District of Illinois, do hereby certify the above and foregoing to be a true and complete transcript of the proceedings had of record made in accordance with Designations filed in this Court in the causes entitled Ace Patents Corporation, a corporation *vs.* The Exhibit Supply Company, Equity No. 16,209; Ace Patents Corporation, a corporation, *vs.* Genco, Inc., a corporation, Equity No. 16,210; and Ace Patents Corporation, a corporation *vs.* Chicago Coin Machine Co., a corporation, No. 16,212, consolidated for appeal, as the same appear from the original records and files thereof, now remaining in my custody and control.

In Testimony Whereof, I have hereunto set my hand and affixed the seal of said Court at my office, in the City of Chicago, in said District, this 12th day of July, A. D. 1940.

Hoyt King,
Clerk.

(Seal)

IN THE UNITED STATES CIRCUIT COURT OF APPEALS
For the Seventh Circuit.

Ace Patents Corporation, a corporation,
Plaintiff-Appellee.
vs.
The Exhibit Supply Company,
Defendant-Appellant. } No. 7402.

Ace Patents Corporation,
Plaintiff-Appellee.
vs.
Genco, Inc., a corporation,
Defendant-Appellant. } No. 7403.

Ace Patents Corporation, a corporation,
Plaintiff-Appellee.
vs.
Chicago Coin Machine Co.
a corporation,
Defendant-Appellant. } No. 7404.

STIPULATION RE PRINTING OF RECORD.

It is hereby stipulated and agreed by and between the parties hereto by their respective attorneys of record that in printing the transcript of record upon appeal the Clerk of the Court and the printer, in respect to the exhibits identified below, may observe the following instructions for the reproduction of said exhibits in order that expense may be saved:

Plaintiff's Exhibit 17 Print lower one-half of page 90, being advertisement of Bally Manufacturing Company in December 19, 1936 issue of Billboard.

Plaintiff's Exhibit 18 Print upper one-half of page 116, being advertisement of Chicago Coin Machine Co. in June 16, 1937 issue of Billboard.

Plaintiff's Exhibit 19 Print all of page 96 in January 23, 1937 issue of Billboard.

Plaintiff's Exhibit 20 Print upper right-hand one-quarter of page 87, being advertisement of Chicago Coin Machine Co. in January 23, 1937 issue of Billboard.

Plaintiff's Exhibit 21 Print all of page 98 in February 6, 1937 issue of Billboard.

Plaintiff's Exhibit 22 Print all of page 87 in February 20, 1937 issue of Billboard.

Plaintiff's Exhibit 23 Print upper one-half of page 93 being advertisement of Chicago Coin Machine Co. in February 27, 1937 issue of Billboard.

Plaintiff's Exhibit 24 Print all of page 86 in March 20, 1937 issue of Billboard.

Plaintiff's Exhibit 25 Print upper one-half of page 93, being advertisement of Genco, Inc. in March 20, 1937 issue of Billboard.

Plaintiff's Exhibit 26 Print all of page 98 in March 20, 1937 issue of Billboard.

Defendants' Exhibit 3 Print all of page 84 in July 18, 1936 issue of Billboard.

Note: Except for Plaintiff's Exhibit 17, which is found in the bound transcript of record, prepared by the Clerk of the District Court, each of the remaining exhibits is found in the separate package of exhibits certified to the Circuit Court of Appeals.

John A. Russell,

Casper W. Ooms,

Attorneys for Plaintiff-Appellee.

Clarence E. Threedy,

Geo. Simmons,

Geo. I. Haight,

Attorneys for Defendant-Appellant

The Exhibit Supply Company.

Clarence E. Threedy,

Geo. I. Haight,

Attorneys for Defendants-Appellants

Genco, Inc. and Chicago Coin Machine Co.

(Endorsed) In the United States Circuit Court of Appeals * * (Captions Nos. 7402, 7403, 7404) * * Stipulation Re Printing of Record. Filed Jul 23, 1940. Kenneth J. Carrick, Clerk.

UNITED STATES CIRCUIT COURT OF APPEALS

For the Seventh Circuit.

I, Kenneth J. Carrick, Clerk of the United States Circuit Court of Appeals, for the Seventh Circuit, do hereby certify that the foregoing printed pages contain a true copy of the printed record, printed under my supervision and filed on the seventeenth day of August, 1940, in the following entitled causes:

Ace Patents Corporation, a corporation,
Plaintiff-Appellee,

7402 vs.

The Exhibit Supply Company,
Defendant-Appellant.

Ace Patents Corporation, a corporation,
Plaintiff-Appellee,

7403 vs.

Genco, Inc., a corporation,
Defendant-Appellant.

Ace Patents Corporation, a corporation,
Plaintiff-Appellee,

7404 vs.

Chicago Coin Machine Co., a corporation,
Defendant-Appellant.

as the same remains upon the files and records of the United States Circuit Court of Appeals for the Seventh Circuit.

In Testimony Whereof I hereunto subscribe my name and affix the seal of said United States Circuit Court of Appeals for the Seventh Circuit, at the City of Chicago, this 6th day of June, A. D. 1941.

(Seal) Kenneth J. Carrick,
Clerk of the United States Circuit Court
of Appeals for the Seventh Circuit.

At a regular term of the United States Circuit Court of Appeals for the Seventh Circuit held in the City of Chicago and begun on the third day of October, in the year of our Lord one thousand nine hundred and thirty-nine, and of our Independence the one hundred and sixty-fourth.

Ace Patents Corporation, a corporation,
Plaintiff-Appellee,
 7402 *vs.*
 The Exhibit Supply Company,
Defendant-Appellant.

Ace Patents Corporation, a corporation,
Plaintiff-Appellee,
 7403 *vs.*
 Genco, Inc., a corporation,
Defendant-Appellant.

Ace Patents Corporation, a corporation,
Plaintiff-Appellee,
 7404 *vs.*
 Chicago Coin Machine Co., a corporation,
Defendant-Appellant.

Appeals from the District Court of the United States for the Northern District of Illinois, Eastern Division.

And, to-wit: On the twelfth day of March, 1941, there was filed in the office of the Clerk of this Court, the opinion of this Court, which said opinion is in the words and figures following, to-wit:

IN THE UNITED STATES CIRCUIT COURT OF APPEALS
For the Seventh Circuit.

Nos. 7402, 7403, 7404.

OCTOBER TERM, 1940, JANUARY SESSION, 1941.

No. 7402.
ACE PATENTS CORPORATION,
A Corporation,
Plaintiff-Appellee,
vs.

THE EXHIBIT SUPPLY COMPANY,
Defendant-Appellant.

No. 7403.
ACE PATENTS CORPORATION,
A Corporation,
Plaintiff-Appellee,
vs.

GENCO, INC., A Corporation,
Defendant-Appellant.

No. 7404.
ACE PATENTS CORPORATION,
A Corporation,
Plaintiff-Appellee,

CHICAGO COIN MACHINE CO.,
A Corporation,
Defendant-Appellant.

Appeals from the District
Court of the United
States for the Northern
District of Illinois, East-
ern Division.

March 12, 1941.

Before SPARKS, MAJOR and KERNER, *Circuit Judges.*
SPARKS, *Circuit Judge.* Appellee by three separate ac-
tions charged the three appellants with infringement of the
Nelson patent, No. 2,109,678. The causes were consolidated
for trial in the District Court, and they are likewise
consolidated for the purposes of these appeals. The patent

was issued March 1, 1938, on an application filed January 12, 1937. The defenses were anticipation by prior patents and publications; a prior knowledge, use, and sale; non-invention in view of the prior art; and non-infringement. Each of the decrees found the Nelson patent valid and infringed, and ordered an injunction and an accounting. From those decrees these appeals are prosecuted.

The invention relates to gaming devices commonly called pin ball games, usually operated by a coin. The patent is entitled "Contact Switch for Ball Rolling Games," and the specific thing claimed is the construction of a switch target in the form of a resilient circuit closer, so disposed on the game table as to be contacted by a freely rolling ball or other playing piece, which momentarily closes the associated electric circuit. The switch comprises a conductor standard mounted in the table and carries a coil spring having a leg pendantly disposed in the conductor ring located in the table slightly offset from the standard. The standard and ring are wired in a circuit with a source of energy and a relay coil in such a manner that when a ball rolling on the table bumps the coil spring from any angular direction, the leg of the spring will be caused momentarily to contact the conductor ring in the board to establish the circuit for operating the relay coil and any desired game auxiliary device.

A standard is mounted in an upright position on the table, the same having a reduced threaded shank passing through the table secured underneath the table by a metallic clip or nut.

The upper end of the standard is likewise reduced to form a threaded shank, the shoulder thus provided carrying a horizontal washer. The shank above the washer carries a cup-shaped cap and between the cap and washer is the end of a coil spring which at its lower end terminates in a pendant spring leg. The spring assembly is made secure by a lock washer and nut at the top of the standard.

Below the pendant leg and offset from the standard, the table is formed with an aperture in which is securely seated a conductor ferrule, into which the pendant leg is suspended and normally out of contact therewith. The ferrule at its lower end is formed with an inturning annular flange and an integral depending extension. The nut underneath the table, and the lower extension of the standard are disposed

in an electrical circuit for an electro-magnetic relay coil, and with a source of electrical energy.

In use, when a ball rolling on the table hits the spring to rebound therefrom, the impact moves the spring sufficiently to cause the pendant spring leg to contact with the inturning annular flange of the ferrule. This momentarily closes the circuit and causes energization of the magnetic relay coil for any desired purpose. Since the pendant spring leg is normally disposed at the center of the annular ferrule, a ball striking the spring from any angular direction will cause the circuit to close in the manner described.

Any desired number of such spring switch targets may be placed on the board in any suitable spaced relationship, and a single ball may successfully bump and close a number of the switch devices.

Claim 4 is in issue.¹

To defeat the claim in suit appellants rely upon the following prior art: Fishér, No. 501,777; Quain, No. 1,057,879; Dabos, No. 541,079 (French); Nakashima, No. 1,678,573; Hooker, No. 2,042,786; Design Patents to Tratsch, numbered respectively 94,290; 94,291; and 94,714; the application of Mabs (subsequently dismissed); the prior use of the Bolo device, made by Pacent Novelty Company; and the prior use by Fitch while employed by the Pacent Company. Concerning the prior use of Fitch the District Court said: "I do not believe the testimony in respect to that prior use. I do not believe there was any such prior use." A reading of this testimony convinces us that the court's conclusion in this respect is supported by substantial evidence. It is not claimed there is any ambiguity in the language employed by the court in expressing its conclusion on this point, and we are precluded from differing with it.

1. "Claim 4. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit."

Appellants contend that the claim in suit is anticipated by Fisher, Quain, and Dabos, and that it lacks invention over the other prior art cited. That argument is based upon their assumption that the Nelson patent comprises merely a spring contact switch. The District Court agreed with appellee in denial of the assumption, and we feel impelled to hold that there was no error in that ruling. Fisher, Quain, and Dabos merely disclose devices and methods of closing electric circuits in burglar alarms. The first two were considered by the Patent Office. The District Court said that neither Fisher nor Dabos suggests a target for a pin table in which the target is formed of a simple coil spring, pendantly supported, which also forms the contact switch for the electrical circuit. This we think is obvious. Moreover, it is not suggested how either could be used in the environment disclosed by Nelson, and if so constructed, it would neither meet the terms of the claim, nor possess the advantages of the Nelson structure. True, appellants exhibited models alleged to embody the disclosures of Fisher, Dabos, and also Hooker. However, they are not full disclosures, or they are combinations of disclosures from more than one patent, and fail to read on the claim, either separately or in combination. If they did so read, they could not constitute anticipation of Nelson's combination claim, for no single prior art device cited discloses all the elements of Nelson. *Chicago Lock Co. v. Tratsch*, 72 F. 2d 482.

Quain discloses a burglar alarm in which a coil spring is mounted within a ring with which it may come in contact if the device is moved. If employed on a pin table in the form suggested by appellants, it would be inaccessible to a ball rolling on the table. If Quain were reconstructed, like appellants' reconstruction of Fisher and Dabos, it would have the same disadvantages as all other such devices wherein the entire mounting is beneath the board. If Quain alone be incorporated in a pin table according to Nelson's suggestions it would not differ in this respect from Fisher and Dabos, and would have none of the advantages of the Nelson structure. We think the District Court was correct in holding that the claim was not anticipated by Fisher, Quain or Dabos.

Appellants next contend that the claim does not disclose invention. Hooker was not pleaded or identified in the notices under Section 4920 of the Revised Statutes. Hence

it was admissible only for the purpose of showing the state of the art and the lack of invention.

Both Hooker and Nakashima employ a leaf spring switch. In the former this spring is mounted to protrude through the playing board so that the rolling ball may strike it. The spring is not pendantsly hung from above the board, and is operable to close the switch only when the ball strikes it from the front. In the latter the spring does not protrude through the hole, but forms the seat of the hole into which the rolling ball perchance may come to rest, and thus by its weight close the switch. In each of these devices the mounting is beneath the table, thus causing a disadvantageous limitation which Nelson overcame.

Concerning the Bolo device, the District Court said, in substance: "It shows a number of comparatively complex switches mounted beneath the board, upon each of which a small replica of a bowling pin is mounted above the board and forms the target for the ball. When this pin is struck it pivots upon the board and serves as one end of a lever to swing a long wire into contact with an annular ring mounted beneath the board. The coil spring employed is in conical form and merely restores the bowling pin to its upright position after the pin has been struck. The spring is not struck by the ball and is not pendantsly supported. This device is wholly mounted beneath the table and is more complex than that of Nelson. It does not perform the same function as the Nelson device nor does it perform its function in a similar manner." We agree with this conclusion of the court.

The Tratsch design patents merely show the use of small spiral springs on playing boards of pin tables, but they do not show or even suggest the use of these springs as switches in electrical circuits.

What is referred to as the Mabs application discloses a lever type switch, with the lever protruding above the pin table board and the switch mounted beneath the board, very much like the Bolo device. In this application for a patent Mabs had claims covering a pin lever switch and other claims covering a detector mechanism. The Patent Office required a division of these claims, whereupon Mabs canceled his claims with respect to the pin lever switch, which he termed as *passé*. A study of all the prior art disclosures convinces us that not one of them, or all of them in com-

bination, would produce a structure containing all of the elements of Nelson.

There is evidence of considerable commercial success enjoyed by the Nelson disclosure. We realize that commercial success should not be used to create a doubt, but it may at times, if properly weighed, be very helpful in dissolving one. Commercial success alone may be very deceptive if secured by intensive advertising, but where, as here, a commercial success follows the immediate use by appellants, we are given further assurance that the commercial success is perhaps warranted.

This patent bears the approval of the Commissioner of Patents, as well as of the District Court, and the evidence before us does not convince us that they were in error with respect to either anticipation or patentability.

Appellants further contend that their defense of patent office estoppel in this case should be sustained. It is based upon the following facts:

The original application contained six claims. In rejecting them the examiner said: "The fact that the applicant's device is designed to be operated by a rolling ball, while other means are used in the references is not considered to be of patentable significance." They were all amended and new claim 7 was added. In response to this amendment the examiner rejected claim 7 as failing to distinctly claim the invention. He said: "It is old in the art to make an electrical contact by flexing a coil spring as shown by the art already cited in the case. In order to distinguish over the references therefor, the applicant's particular type of contact structure, comprising an extension on the coil spring adapted to engage an annular contact embedded in the table, must appear in the claims
• • • "

In response thereto Nelson again amended by striking and adding. We have set forth original claim 7 with the amendments here suggested. (Matter in parenthesis inserted, and matter stricken, so marked).

"(4) ~~7~~. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an

electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendants from the upper portion of the standard (**ABOVE THE TABLE**) with the coils of the spring spaced from the standard ~~and the lower end of the coil spring terminating~~

~~at a distance above the top surface of the table~~ to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and

~~other~~ conductor means (**IN SAID CIRCUIT AND EMBEDDED IN**) ~~carried by~~ the table at a point spaced from the standard and engageable by a portion of

the spring when it is flexed to close the aforementioned circuit."

The examiner again rejected claim 7 as describing an inoperative structure, as the coil spring could not both terminate at a distance above the table and extend into a ferule embedded therein. He added: "It is true as the applicant suggested that if the pendant spring leg were removed from the spring and embedded in the table an operative device would result but no such structure has been brought out by the drawing or specification." Claim 4 was then amended to its present form, and Nelson thereupon stated that the claim "has been significantly amended near the end to define the complementary conductor contact as being embedded in the table."

By these proceedings appellants contend that claim 4 is limited to a complementary conductor, and a complementary conductor contact, which are embedded in the table, and that appellee is estopped to assert infringement against appellants' devices because neither of their complementary conductors or contacts are embedded in the table. The main controversy here is over the meaning of the word "embed." Webster defines it: "To set solidly as in a bed; to lay in surrounding matter; to bed; as to embed a brick in mortar." The Oxford English Dictionary defines it: "To fix firmly in a surrounding mass of some solid material." Appellants rely upon these two authorities, and construe each to mean that the thing embedded must not

extend above or below the embedding material, which in this case is the top board of the pin table. The claim does not specifically require the contact to be below the top surface and above the bottom surface of the board, but of course it must be there, if appellants' construction of the definitions is correct. They urge its correctness because it consists with the intention of Nelson as expressed in his letter to the examiner, to which we have previously referred, and with the intention of the examiner who accepted the amendment upon receipt of the letter.

We cannot accept appellants' construction of the definitions referred to. A reading of them convinces us that if a thing is solidly set in surrounding matter or if it is fixed firmly in a surrounding mass of solid material, it must be considered as being embedded in the matter or material regardless of whether it protrudes above or below the matter or material. In arriving at the intention of both the patentee and the examiner, we are also warranted in looking at the drawings and specifications. The drawing clearly discloses that the embedded ferrule, which is the complementary conductor, extends both above and below the table, and we think there can be no doubt that this was observed and approved by the examiner when he allowed the claim. So far as the ferrule is concerned, it is clear that the examiner did not approve appellants' construction of the definitions of "embed," for neither the drawings nor the specification indicated any such limitation. The drawings indicate the contrary. In Nelson's letter it is not clear why he should have said that his conductor contact was to be embedded in the table, because the examiner's remarks on his last rejection of claim 7, and Nelson's amendment in response thereto required no such construction. Moreover, under any construction of the word "embed" which has been suggested, it would seem impossible to set solidly and to fix firmly an electrical contact designed to open and close frequently. We speak here with respect to contact as an accomplished fact, as distinguished from points of contact which are necessarily used in making the contact.

The later embodiments of appellee's claim have further extended the ferrule upwardly above the table top, yet its bottom is set solidly and fixed firmly in the surrounding solid wood of the table top, and we think it must be considered as embedded therein. We hold there is no file wrapper estoppel here.

On the question of infringement appellants contend that their devices, marked as plaintiff's exhibits 5 and 7, do not infringe because the pin, which is a nail driven through the block, which forms the conductor in the electrical circuit, is not embedded in the table. In view of what we have said with respect to the definition of the word "embed," we think there is no merit in this contention. Otherwise, the two devices read upon the claim and we think they infringe.

With respect to the exhibits of Chicago Coin Machine Company and Genco, Inc., marked plaintiff's exhibits 6 and 10, it may be said that they differ from exhibits 5 and 7 only in that appellants have cut a large hole in the pin table at the point where the conductor is normally embedded and have covered this hole with an additional plate of metal which is secured to a pin table by the standard, and they have embedded the conductors in this metal plate. The metal plate serves no function except to support the pin which, in the previous devices, was driven directly into the board. In other words, they have transformed the pin table from a single solid board into a structure composed of a solid board with an overlying metal layer. They have separated one unit into two parts which perform the same function in identically the same manner, and we think infringement is clear. *Highway Appliances Co. v. American Concrete Expansion Joint Co.*, 93 F. 2d 113; and *Chicago Lock Co. v. Tratsch*, 72 F. 2d 482.

In the accused devices of the Exhibit Supply Company, referred to as plaintiff's exhibits 8 and 9, the laminations in exhibits 6 and 10 are removed, and there is substituted therefor a plastic core. Although this is not horizontally spread out to form the laminations of the pin table, it is attached to the pin table equally securely by means of the standard which is embedded in the board. As to these exhibits, appellants stress the fact that the terms of the Nelson patent were varied from a demand that the conductor be "carried by the table at a point spaced from the standard" to "embedded in the table at a point spaced from the standard." This argument likewise depends upon the correctness of appellants' definition of the word "embed." Prior to this substitution of language, almost any form of conductor which was mounted on the table in any place or manner, permanently or movably, would have answered the language of the claim. The substitution was made to cover

the preferred embodiment of the structure as shown in the drawing, and, as we have stated, it met what we consider the proper interpretation of the word "embed." As stated by appellee, it was important that the conductor be embedded in order that the fixed relationship between it and the coil spring would be insured. Its vertical position was unimportant except that it had to be within reach of the terminal of the coil spring so as to form a contact. The position that was important was its horizontal relation to the coil spring. The position of the latter was fixed by the position of the standard that was likewise embedded in the pin table. With the conductor embedded in the table, there was a fixed and unyielding relationship between the two. That the vertical position of the conductor was unimportant for any reason except reaching the terminal of the coil spring, is clearly shown by Nelson's own anticipation, which he expressed in one of his communications to the Patent Office, of the simple reversal which defendants first adopted. He therefore realized that if the pin were embedded in the table and extended upward to meet a terminal on the coil springs, his structure would be present and readable upon the claim.

Appellants at different times have varied the elevation at which the conductor was mounted, but we think it is obvious that they have never varied the one essential demand of the claim that the conductor be embedded either directly or indirectly in the pin table. We agree with appellee that exhibits 8 and 9 are merely mechanical equivalents of the Nelson structure, and we are convinced that appellants are in error in contending that the Nelson patent will not reach mechanical equivalence because of this change in terminology in the Patent Office. *Gray Telephone Co. v. Baird Mfg. Co.*, 174 Fed. 417; *Libbey Glass Mfg. Co. v. Albert Pick Co.*, 63 F. 2d 469.

The decrees are

AFFIRMED.

Endorsed: Filed March 12, 1941. Kenneth J. Carrick,
Clerk.

And on the same day, to-wit: On the twelfth day of March, 1941, the following further proceedings were had and entered of record, to-wit:

Wednesday, March 12, 1941.

Court met pursuant to adjournment.

Before:

Hon. William M. Sparks, Circuit Judge.

Hon. J. Earl Major, Circuit Judge.

Hon. Otto Kerner, Circuit Judge.

7402	Ace Patents Corporation, <i>Plaintiff-Appellee,</i> <i>vs.</i> The Exhibit Supply Company, <i>Defendant-Appellant.</i>	}	Appeal from the District Court of the United States for the Northern District of Illinois, East- ern Division.
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This cause came on to be heard on the transcript of the record from the District Court of the United States for the Northern District of Illinois, Eastern Division, and was argued by counsel.

On consideration whereof, it is ordered, adjudged and decreed by this Court that the decree of the said District Court in this cause appealed from be, and the same is hereby, affirmed, with costs.

7403	Ace Patents Corporation, <i>Plaintiff-Appellee,</i> <i>vs.</i> Genco., Inc., <i>Defendant-Appellant.</i>	}	Appeal from the District Court of the United States for the Northern District of Illinois, East- ern Division.
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This cause came on to be heard on the transcript of the record from the District Court of the United States for the Northern District of Illinois, Eastern Division, and was argued by counsel.

On consideration whereof, it is ordered, adjudged and decreed by this Court that the decree of the said District Court in this cause appealed from be, and the same is hereby, affirmed, with costs.

7404 Chicago Ace Patents Corporation, <i>Plaintiff-Appellee,</i> <i>vs.</i> Coin Machine Company, <i>Defendant-Appellant.</i>	} Appeal from the District Court of the United States for the Northern District of Illinois, East- ern Division.
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This cause came on to be heard on the transcript of the record from the District Court of the United States for the Northern District of Illinois, Eastern Division, and was argued by counsel.

On consideration whereof, it is ordered, adjudged and decreed by this Court that the decree of the said District Court in this cause appealed from be, and the same is hereby, affirmed, with costs.

And afterwards, to-wit: On the twenty-fifth day of March, 1941, the following further proceedings were had and entered of record, to-wit:

Tuesday, March 25, 1941.

Court met pursuant to adjournment.

Before:

Hon. William M. Sparks, Circuit Judge.

7402 Ace Patents Corporation,
Plaintiff-Appellee,
vs.
The Exhibit Supply Company,
Defendant-Appellant.

7403 Ace Patents Corporation,
Plaintiff-Appellee,
vs.
Genco, Inc.,
Defendant-Appellant.

Appeals from the District
Court of the United
States for the Northern
District of Illinois, East-
ern Division.

7404 Ace Patents Corporation,
Plaintiff-Appellee,
vs.
Chicago Coin Machine Company,
Defendant-Appellant.

On motion of counsel for appellants, it is ordered that leave be, and it is hereby, granted to James E. Watson and Samuel A. King to file their appearance herein as additional counsel for appellants; and that the time within which appellants may file their petition for rehearing be, and it is hereby, extended to include April 10, 1941.

And afterwards, to-wit: On the tenth day of April, 1941, there was filed in the office of the Clerk of this Court, a petition for a rehearing which said petition for a rehearing is in the words and figures following, to-wit:

IN THE

United States Circuit Court of Appeals

FOR THE SEVENTH CIRCUIT

No. 7402

ACE PATENTS CORPORATION,
Plaintiff-Appellee

vs.

THE EXHIBIT SUPPLY COMPANY,
Defendant-Appellant.

No. 7403

ACE PATENTS CORPORATION,
Plaintiff-Appellee,

vs.

GENCO, INC.,
Defendant-Appellant.

No. 7404

ACE PATENTS CORPORATION,
Plaintiff-Appellee,

vs.

CHICAGO COIN MACHINE CO.,
Defendant-Appellant.

Appeals from the
District Court of
the United States
for the Northern
District of Illi-
nois, Eastern Di-
vision.

Honorable
John P. Barnes,
Judge Presiding.

PETITION FOR REHEARING

U.S. C. C. A. - 7
FILED

APR 10 1941

LETH J. CARRICK
CLERK

Of Counsel:

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Chicago Coin Machine Co.

CLARENCE E. THREEEDY,
GEORGE H. SIMMONS,

Attorneys for The Exhibit Supply
Company.

IN THE
United States Circuit Court of Appeals
FOR THE SEVENTH CIRCUIT

No. 7402

ACE PATENTS CORPORATION,
Plaintiff-Appellee

vs.

THE EXHIBIT SUPPLY COMPANY,
Defendant-Appellant.

No. 7403

ACE PATENTS CORPORATION,
Plaintiff-Appellee,

vs.

GENCO, INC.,
Defendant-Appellant.

No. 7404

ACE PATENTS CORPORATION,
Plaintiff-Appellee,

vs.

CHICAGO COIN MACHINE CO.,
Defendant-Appellant.

Appeals from the
District Court of
the United States
for the Northern
District of Illi-
nois, Eastern Di-
vision.

—
Honorable
John P. Barnes,
Judge Presiding.

PETITION FOR REHEARING

*To the Honorable Judges of the United States Circuit
Court of Appeals for the Seventh Judicial Circuit:*

Now come the defendants and respectfully petition
for a rehearing of the above-entitled cause for the
following assigned reasons:

Point I.

In its opinion (p. 4, l. 20) this Court said, when speaking of the prior art devices, including Fisher:

"they are not full disclosures, or they are combinations of disclosures from more than one patent, and fail to read on the claim, either separately or in combination. If they did so read, they could not constitute anticipation of Nelson's combination claim, for no single prior art device cited discloses all the elements of Nelson. Chicago Lock Co. v. Tratsch, 72 F. (2d) 482."

This is a factual error resulting, we respectfully submit, from a confusion of the facts as they actually exist.

A reference to the herein reproduction of the Nelson device in comparison with the Fisher and the Bolo devices, clearly shows that in each there are found the entire six elements of claim 4 in issue and that each by reason thereof constitutes a full disclosure of the device of claim 4.

From this comparison between the Nelson and Fisher devices, it will be seen that the Fisher device, like the Nelson device, employs a **board**. Anchored in this board is a vertically extending **standard 13** having means carrying from the top of the standard a **coil spring 14**. This board of Fisher, like the board of Nelson, carries a **conductor ring 15** spaced from the standard. Both the standard 13 and the conductor ring 15, like the standard 11 and conductor ferrule 22 of Nelson, each have a **lead 16 and 17**, respectively, for an electric circuit; and the spring 14 of Fisher, like the spring 18 of Nelson, is in the electric circuit and is adapted to engage the conductor 15 when flexed to close the aforementioned circuit.

THE ELEMENTS OF CLAIM 4 APPLIED

N. A. NELSON,

PAT. NO. 2,109,678 - IN SUIT -

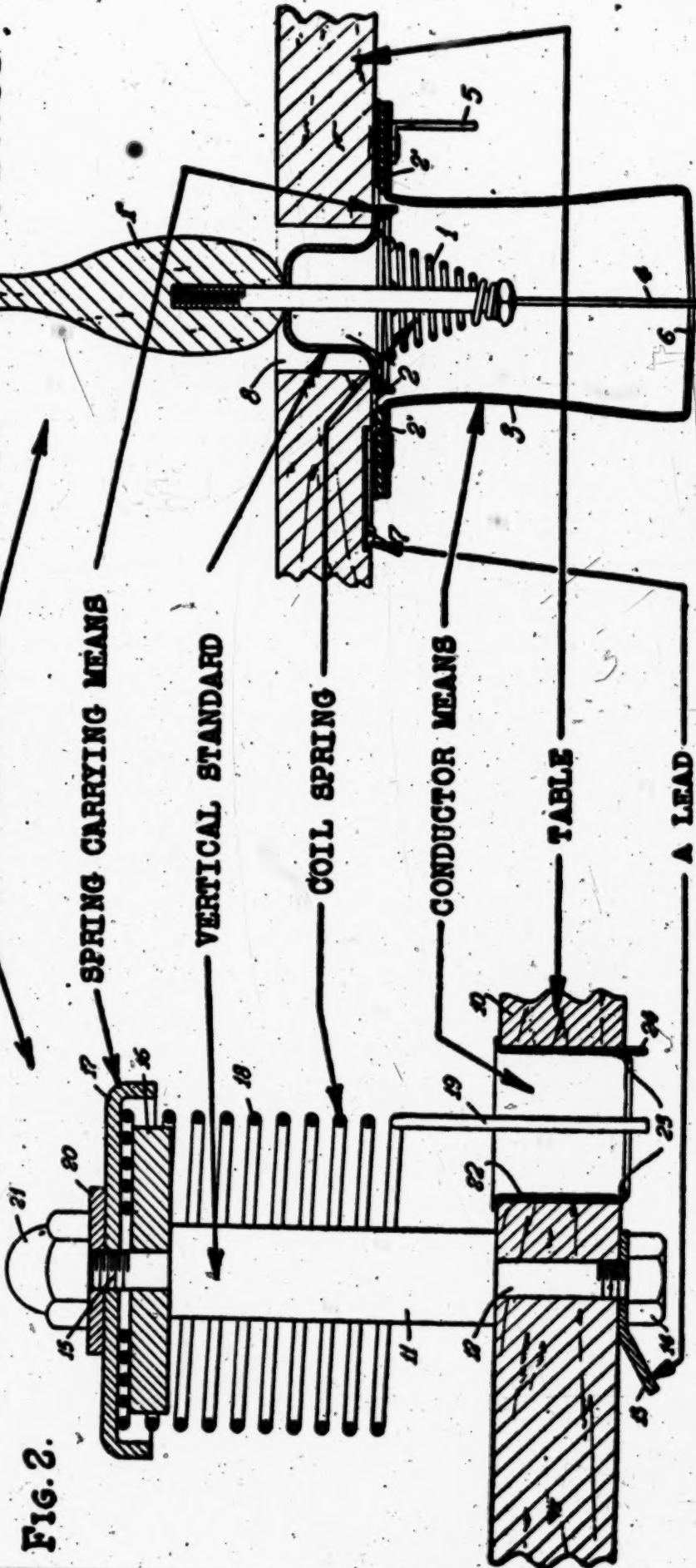
ISSUED MAR. 1, 1936

BALL ROLLING GAME

BOLO

DEVICE

FIG. 2.



Likewise, from the comparison between the Nelson and Bolo devices, as illustrated by the charts here reproduced, it will be seen that the Bolo device, like the Nelson device, is employed in a **ball rolling game** having a substantially horizontal **table** over which balls are rollable, and there is anchored in this table a vertically extending **standard 2** carrying on the underside thereof a **lead 7**. This **standard 2** has **means** pendantly supporting a **coil spring—1—**. The Bolo device, like the Nelson device, further includes a **conductor means 3** spaced from the **standard 2** and carried by the board and adapted to be engaged by an extended portion 4 of the **spring—1—** when the **spring—1—** is resiliently flexed by the engagement of a ball against the target pin—1'—. The **spring—1—** of the Bolo device, like the **spring 18** of the Nelson device, is in the electric circuit and constitutes a conductor.

As a result of the above comparisons it is clear that there is no substantial difference between Nelson and each of the Fisher and Bolo devices; they do not omit any of the elements of Nelson as the Court concluded. The most that Nelson has done is to change the form of the essential elements found in either Fisher or Bolo. It has been universally held that in the absence of a new and beneficial result, change in form alone does not amount to invention.

This rule, expressed by the Supreme Court in *Smith v. Nichols*, 88 U. S. (21 Wall.) 112, 22 L. Ed. 566, and reading to the effect that:

"A mere carrying forward or new or more extended application of the original thought, a change only in form, proportions or degree, the substitution of equivalents, doing substantially the same thing in the same way by substantially the same means with better results is not such achievement as will sustain a patent."

has been adopted by the Court of Appeals for this

Seventh Circuit in *Higby v. A. B. T. Mfg. Co.*, 93 F. (2d) 73 @ 74, and the rule expressed and reiterated in *Higby v. A. B. T. Mfg. Co.* has been adopted and followed by this Court in *Benjamin Electric Mfg. Co. v. Bright Light Reflector Co.*, 111 F. (2d) 880 @ 882.

In the case at bar, the Nelson device differs from Bolo not in substance but in form only. The Nelson device may produce a better result, yet the **original thought or idea of a switch for a ball rolling game, which switch includes a target capable of being struck from any angular direction with respect thereto for closing an electric circuit, and for rebounding the ball upon a board, originated not in Nelson, but in Bolo.** All that Nelson did was to substitute a well-known form of target, to-wit, a coil spring such as disclosed by Tratsch, for the target pin—1'—of Bolo without any new or different function or result and this is demonstrated as follows:

In the Bolo device, like in the Nelson device, when the ball engages the target—1'—the coil spring—1—flexes to close an electric circuit; this being the result on each case of the ball engaging the target. Upon reflexing of the spring—1—, like in the Nelson device, this target—1'—rebounds the ball upon the table. Thus, the same function and the same result are present in each device,

While the Nelson device, like the Bolo or Fisher devices, may be used within an enclosure, yet neither the specification nor the claims of the Nelson patent define the claimed invention as being within such an enclosure; much less does the drawing of the Nelson patent show the device within such an enclosure. Inasmuch as all three devices, that is, the Nelson, Fisher and Bolo devices are freely accessible to the operator or user, one may be adjusted or cleaned or otherwise repaired with as great ease as the other. In fact, the Bolo device is *far simpler* than the Nelson device.

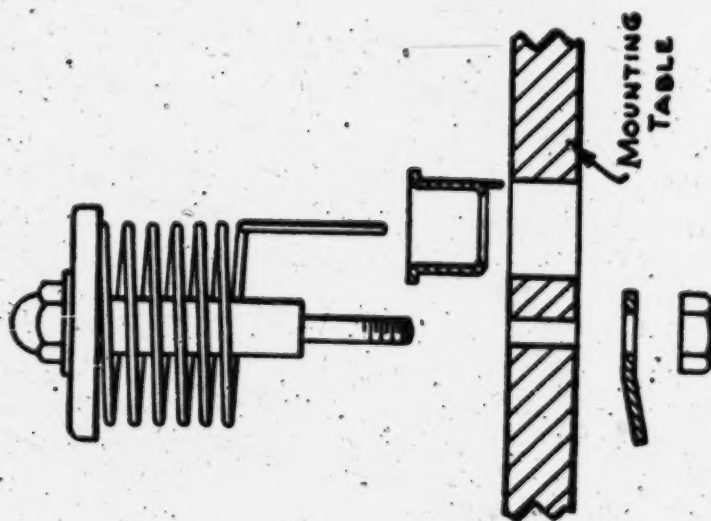
As seen from the charts here produced (Page 8), the Bolo device may be installed with greater ease than the Nelson device, for it requires but a single hole for mounting purposes and the parts are so related as to constitute a unitary structure, as distinguished from the Nelson device which requires a double operation in assembly by reason of a hole in the board for the standard 11 and a hole spaced from the standard for the conductor 22.

As to installation, it requires the identical operations in installing the Fisher device as it does in installing the Nelson device, that is to say, as seen from this chart, each requires a hole in the board for its respective standards 13 and 11 and a like hole spaced from the standard for the conductor means 15 and 22 respectively; all of which facts this Court has apparently lost sight of.

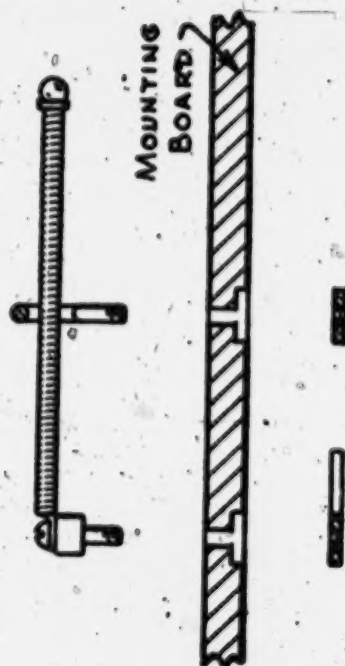
While it is true that the Fisher spring 14 is not capable of being struck by a ball from all angular directions with respect thereto, it cannot be denied that the target—1—of Bolo, like the target spring 18 of Nelson, is capable of being struck by a ball from any angular direction.

As between Nelson and Bolo, Nelson's spring is located above the board. The Bolo spring—1—is located beneath the board. This, in its truest sense, is a *mere transposition of parts without any new result or function*. Both accomplish the same result and the same function, that is to say, in each the spring flexes to permit the closing of a contact, and upon reflexing it causes the rebounding of a ball upon the board. This function and result can be demonstrated by operation of the Bolo game in evidence as Defendants' Exhibit 2. *If Bolo were subsequent to Nelson*, under the decision of this Court in *Chicago Lock Co. v. Tratsch*, 72 F.

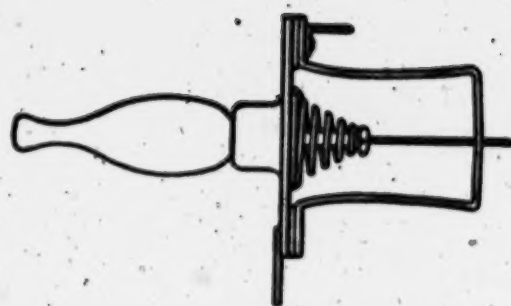
DIAGRAM OF INSTALLATION COMPARED



NELSON



FISCHER



BOLO



(2d) 482, infringement would not be avoided by this *mere transposition of parts or the substitution of equivalents.*

Having shown by the charts hereinbefore referred to that Fisher includes all the elements of the claim in issue and accomplishes the same result and function as the device of the claim, the only question left to consider is whether or not the Nelson device is distinguished from the Fisher device because the latter is not shown or described in connection with a pin ball table. In speaking of Fisher, this Court said (p. 4 of opinion):

"The District Court said that neither Fisher nor Dabos suggests a target for a pin table in which the target is formed of a simple coil, spring pendantly supported, which also forms the contact switch for the electrical circuit."

From the comparison herein between the Nelson and Fisher devices, unquestionably the spring 14 of Fisher is a simple coil spring, forms a part of the contact switch for the electric circuit and, in the broad sense of the term "pendantly," it is suspended from the standard 13.

True, the Fisher device is not shown or described as being mounted on a pinball table, but Nelson states by his own language as contained in his application (Rec. 433): "The invention relates to a contact switch for use in ball rolling games"

"or the like"

thereby, by the expression "or the like," manifesting and contemplating the use of the claimed invention in other environment.

Furthermore, in the rejection of claim 2 (containing the introduction, "In a ball rolling game") in view of the prior art including Fisher, Nelson acquiesced and

agreed with the United States Patent Office Examiner that (Rec. 443):

"The fact that the applicant's device is designed to be operated by a rolling ball, *while other means are used in the references is not considered to be of patentable significance.*"

This was further acknowledged by Nelson, who (Rec. 447) endeavored to distinguish the rejected claim 2 having the introduction

"In a ball rolling game"

from Fisher, not upon the grounds that Fisher did not relate to a ball rolling game, but rather on the grounds that

"Such broad rejection would not be warranted unless the references disclosed the same spring switch closer as in applicant's invention, *apart from the means or manner of closing the switch whether by a ball or, what-not.*"

As the facts therefore stand, it is factual error to conclude that there is a patentable difference between the device of Nelson and that of either Fisher or Bolo. In *Benjamin Electric Mfg. Co. v. Bright Light Reflector Co.*, 111 F. (2d) 880 @ 882, this Court said:

"Trivial modifications of process or products do not show invention. *Rosenberg et al. v. Carr Fastener*, 2 Cir., 51 F. (2d) 1014. And even though no one previous patent or device employs all the mechanical features disclosed by the patentee, unless assembling of the features of the prior art constitutes invention, the patent is invalid. *General Machinery Corp. v. Clearing Machine Corp.*, 7 Cir., 104 F. (2d) 553. Any patented device, all of the elements of which are old and each of which performs the same function taught by the prior art, fails as an invention. *Higby v. A. B. T. Mfg. Co.*, 7 Cir., 93 F. (2d) 73; *Boynton v. Chicago Hardware Foundry Co.*, 7 Cir., 77 F. (2d) 799; *M. H. Detrick Co. v. Chicago Fire Brick Co.*,

7 Cir., 95 F. (2d) 455. We believe that Benjamin exercised mere mechanical skill."

Where, as here, the patentability is predicated on form *alone*, or the substitution of equivalents, or the transposition of parts, the hereinbefore stated rule of *Smith v. Nichols*, 88 U. S. (21 Wall.) 112, 22 L. Ed. 566, should be invoked.

Point II.

In declaring Exhibit 9 (here reproduced) an infringement of claim 4, the court undoubtedly confused the part 2 of Exhibit 9 with the conductor ferrule 22 of the Nelson device. This part 2 of Exhibit 9 is the standard which pendantly supports the spring—1—and is comparable to the standard 11 of Nelson and not the conductor ferrule 22. No part of this standard 2 of Exhibit 9 is embedded directly or indirectly in the board. It is fixed to the board from the underside thereof by means of a screw 10. The conductor ring 4 of Exhibit 9, as shown, encircles the lower enlarged end of the core 2'. As a conductor, this ring 4 is comparable to the conductor ferrule 22 of Nelson; but this conductor ring 4 of Exhibit 9 is "*carried by*" the board *through and by virtue of the core 2' and standard 2*, and is not "*embedded in*" the board either directly or indirectly, as is the conductor ferrule 22 of Nelson, much less is it embedded in any other element of Exhibit 9.

The Court while acting under this **mistake of fact** applied the doctrine of equivalents (p. 10) and decreed Plaintiff's Exhibit 9 an infringement, in spite of the fact that the conductor ring 4 of Exhibit 9 is *not em-*

bedded in the board either directly or indirectly, a requirement declared by this Court to be (p. 10)

"the one essential demand of the claim"

to-wit

"that the conductor be embedded either directly or indirectly in the pin table."

Applying that doctrine of equivalents, either the Fisher or Bolo device comes within the terms of the claim as broadly construed, for either of such devices, as shown by the charts here produced, contains, like Plaintiff's Exhibit 9, all the six elements of the claim.

As seen from these charts, the conductor ring 15 of the Fisher device has its shank embedded in the board **directly**, and the fixed relationship between this conductor ring and the spring 14 of Fisher, like the fixed relationship between the conductor 22 and spring 18 of Nelson, is insured, a requirement asserted by this Court to be important in connection with the Nelson device (p. 10).

As seen from these charts, the conductor 3 of the Bolo device, like the conductor 4 of Plaintiff's Exhibit 9, is carried by the standard 2, in turn fixed to the board from the underside thereof by means of a screw or the like. The fixed relationship between this conductor 3 of the Bolo device and the spring—1—, like the fixed relationship between the conductor 22 and spring 18 of Nelson, meets the requirement of the claim declared to be important by this Court, in that *this fixed relationship is insured.*

Consequently and as shown by the above charts, inasmuch as Plaintiff's Exhibit 9, element for element, function for function, is similar to the Bolo device and inasmuch as Plaintiff's Exhibit 9 is said to constitute an infringement of the claim in issue, then the

ILLUSTRATION OF
FISHER PAT. No. 501777
BURGLAR ALARM

13

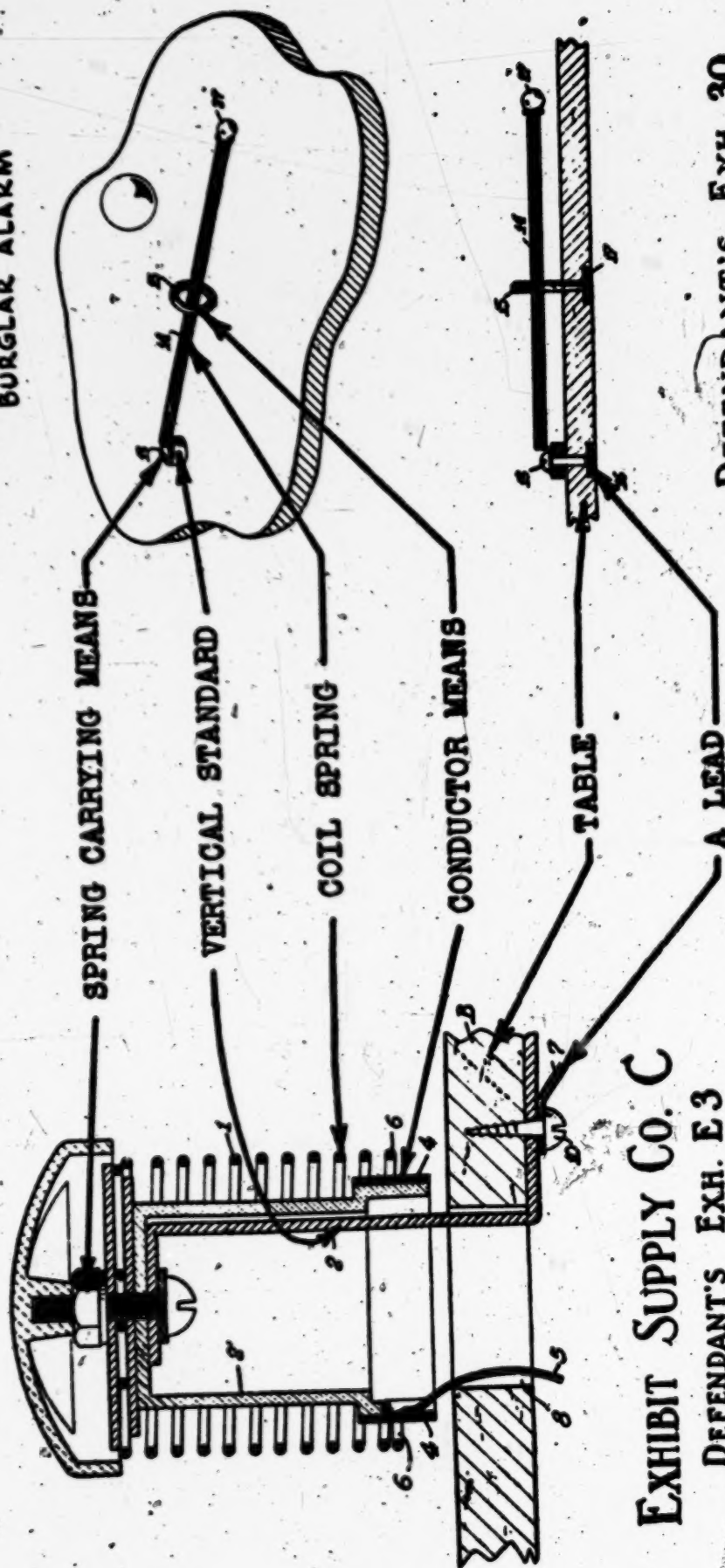


EXHIBIT SUPPLY CO. C

DEFENDANT'S EXH. E3

PLAINTIFF'S EXH. 9

DEFENDANT'S EXH. 30

697

PLAINTIFF'S EXH. 9 COMPARED WITH BOLO

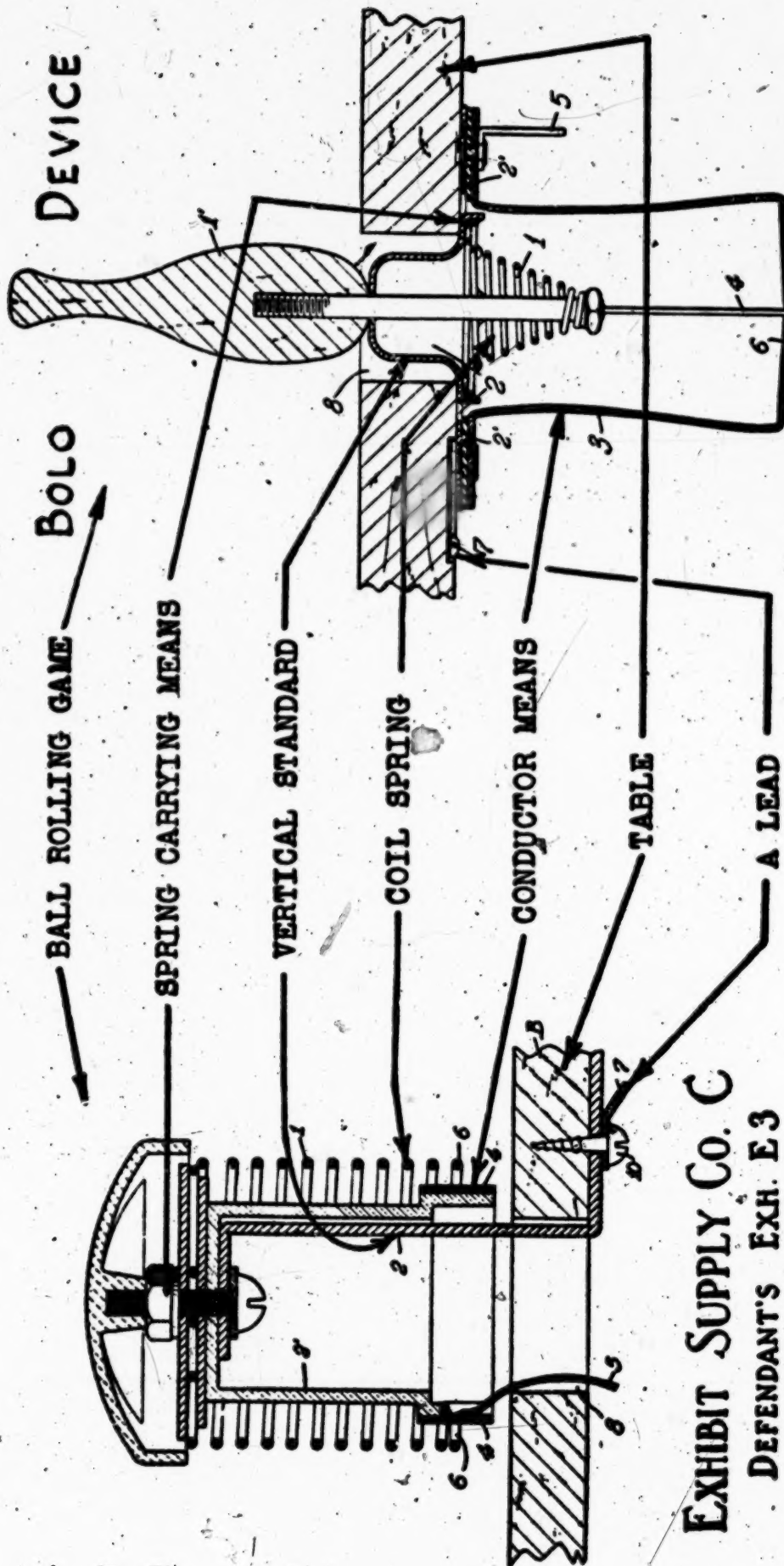


EXHIBIT SUPPLY CO. C

DEFENDANT'S EXH. E3

PLAINTIFF'S EXH. 9

DEFENDANT'S EXHIBIT 35

Bolo device is likewise an infringement of the claim, and, being prior in point of time, it therefore follows that Bolo (like the Fisher device) anticipates the claim under the proposition that:

"Two things similar to a third are similar to each other."

Furthermore, claim 7, which ultimately matured into claim 4 here in issue, contained the broad statement that the conductor means was "carried by," the table. Under the requirement of the Patent Office Examiner and in order to distinguish the invention from the prior art, this term was cancelled and the more limited term "embedded in" was substituted therefor.

Thus, it is apparent that in decreeing Exhibit 9 an infringement of claim 4, the Court has given to the claim by resort to the doctrine of equivalents the larger scope which it had as application claim 7 prior to the amendment which substituted the more limited term "embedded in" for the broader term "carried by," which latter term if contained in claim 4 in issue would have made this claim read upon any similar device, irrespective of the manner of mounting of the conductor; a fact positively acknowledged by this Court in the following language (p. 9):

"Prior to this substitution of language, almost any form of conductor which was mounted on the table in any place or manner, permanently or movably, would have answered the language of the claim."

In thus declaring the accused devices, particularly Plaintiff's Exhibit 9, an infringement of the claim in issue, this Court apparently has overlooked the rule of law expressed by this Court in *Kessel et al. v. Vidrio Products Co.*, 113 F. (2d) 381 @ 383, reading:

"Where an applicant whose claim is rejected on

reference to a prior patent, without objection or appeal; voluntarily restricts himself by an amendment of his claim to a specific structure, having thus narrowed his claim in order to obtain a patent, he may not by construction, or by resort to the *doctrine of equivalents*, give to the claim the larger scope which it might have had without the amendments, *which amount to a disclaimer.*"

In equity and good conscience the same doctrine of equivalents should be applied and the same broad scope should be given the claim when considering the Fisher and Bolo devices, and when considered and applied in this manner, due to their similarity, element for element and function for function, either Bolo or Fisher anticipates the claim.

Unquestionably the holding of validity of the claim in issue was the result of a confusion of the facts as they actually exist. If these petitioners found it necessary to predicate their petition for a rehearing upon matters which constituted nothing more than a reargument, they are sincere in saying to this Court that this petition would not be filed. They are, however, equally sincere in their belief that a grievous error has been committed and that this error has arisen by virtue of a mistake of fact. They therefore present this petition with the hope that this error will be ultimately corrected, and they are confident that after a careful reading of this petition this Court will not hesitate in correcting that error by declaring the claim invalid in view of either Fisher or Bolo.

CONCLUSION.

This petition is made for the purpose of preventing the existing mistake of fact from working an injustice to this Court as well as to these petitioners. It is respectfully requested and urged that this petition be given due and proper consideration, at the conclusion of which we sincerely believe the same will be granted.

Respectfully submitted,

CLARENCE E. THREEEDY,
*Attorney for Genco, Inc. and Chi-
cago Coin Machine Co.*

CLARENCE E. THREEEDY,
GEORGE H. SIMMONS,
*Attorneys for The Exhibit Supply
Company.*

Of Counsel:

JAMES E. WATSON, . .
WILLIAM H. KING,
of Washington, D. C.

And afterwards, to-wit: On the sixteenth day of May, 1941, the following further proceedings were had and entered of record, to-wit:

Friday, May 16, 1941.

Court met pursuant to adjournment.

Before:

Hon. William M. Sparks, Circuit Judge.

Hon. J. Earl Major, Circuit Judge.

Hon. Otto Kerner, Circuit Judge.

7402 Ace Patents Corporation,
Plaintiff-Appellee,
vs.
The Exhibit Supply Company,
Defendant-Appellant.

7403 Ace Patents Corporation,
Plaintiff-Appellee,
vs.
Genco, Inc.,
Defendant-Appellant.

7404 Ace Patents Corporation,
Plaintiff-Appellee,
vs.
Chicago Coin Machine Company,
Defendant-Appellant.)

Appeals from the District
Court of the United
States for the Northern
District of Illinois, East-
ern Division.

It is ordered by the Court that the petition for a rehearing of these causes be, and the same is hereby, denied.

And afterwards, to-wit: On the twenty-eighth day of May, 1941, the following further proceedings were had and entered of record, to-wit:

Wednesday, May 28, 1941.

Court met pursuant to adjournment.

Before:

Hon. William M. Sparks, Circuit Judge.
 Hon. J. Earl Major, Circuit Judge.
 Hon. Otto Kerner, Circuit Judge.

7402 Ace Patents Corporation,
Plaintiff-Appellee,
vs.
 The Exhibit Supply Company,
Defendant-Appellant.

7403 Ace Patents Corporation,
Plaintiff-Appellee,
vs.
 Genco, Inc.,
Defendant-Appellant.

7404 Ace Patents Corporation,
Plaintiff-Appellee,
vs.
 Chicago Coin Machine Company,
Defendant-Appellant.

Appeals from the District
 Court of the United
 States for the Northern
 District of Illinois, East-
 ern Division.

On motion of counsel for appellants, it is ordered that the mandates of this Court in these causes be, and they are hereby, stayed pursuant to Rule 25 of the rules of this Court.

And afterwards, to-wit: On the fourth day of June, 1941, there was filed in the office of the Clerk of this Court, a designation of record, which said designation of record is in the words and figures following, to-wit:

IN THE UNITED STATES CIRCUIT COURT OF APPEALS

For the Seventh Circuit.

Ace Patents Corporation, a corporation, <i>Plaintiff-Appellee,</i> <i>vs.</i> The Exhibit Supply Company, a corporation, <i>Defendant-Appellant.</i>	}	No. 7402.
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Ace Patents Corporation, a corporation, <i>Plaintiff-Appellee,</i> <i>vs.</i> Genco, Inc., a corporation, <i>Defendant-Appellant.</i>	}	No. 7403.
---	---	-----------

Ace Patents Corporation, a corporation, <i>Plaintiff-Appellee,</i> <i>vs.</i> Chicago Coin Machine Co., a corporation, <i>Defendant-Appellant.</i>	}	No. 7404.
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DEFENDANTS-APPELLANTS' DESIGNATION OF
RECORD ON PETITION FOR WRIT OF CER-
TIORARI.

1. Printed record before the Circuit Court of Appeals.
2. Opinion dated March 12, 1941.
3. Decree in case No. 7402.
4. Decree in case No. 7403.
5. Decree in case No. 7404.
6. Order of March 25, 1941 extending time for filing petition for rehearing.
7. Petition for rehearing filed April 10, 1941.

Designation of Record.

8. Order denying petition for rehearing, dated May 16, 1941.
9. Order staying mandate, dated May 28, 1941.
10. This designation of record on petition for writ of certiorari.

Clarence E. Threedy,
George H. Simmons,
*Attorneys for Defendant-Appel-
lant The Exhibit Supply Com-
pany.*

Clarence E. Threedy,
*Attorney for Defendants-Appel-
lants Genco, Inc. and Chicago
Coin Machine Co.*

June 3, 1941.

Received a copy of the foregoing document this 3d day
of June, 1941.

John A. Russell,
Casper W. Ooms,
Attorneys for Plaintiff-Appellee.

Endorsed: Filed June 4, 1941. Kenneth J. Carrick,
Clerk.

For the Seventh Circuit.

Ace Patents Corporation, a corporation,
Plaintiff-Appellee,

vs.

The Exhibit Supply Company,
Defendant-Appellant.

U.S.

Ace Patents Corporation, a corporation,
Plaintiff-Appellee,

Genco, Inc., a corporation,
Defendant-Appellant.

vs:

' Ace Patents Corporation, a corporation,
Plaintiff-Appellee,

Chicago Coin Machine Co., a corporation,
Defendant-Appellant.

as the same remains upon the files and records of the United States Circuit Court of Appeals for the Seventh Circuit.

In Testimony Whereof I hereunto subscribe my name and affix the seal of said United States Circuit Court of Appeals for the Seventh Circuit, at the City of Chicago, this 6th day of June, A. D. 1941.

(Seal)

Kenneth J. Carrick,
Clerk of the United States Circuit Court
of Appeals for the Seventh Circuit.

SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1941

No. 154

ORDER GRANTING REHEARING AND CERTIORARI—November 10, 1941

On Petition for Writ of Certiorari to the United States Circuit Court of Appeals for the Seventh Circuit

A petition for rehearing having been submitted in this case;

Upon consideration thereof, it is ordered by this Court that the petition for rehearing be, and the same is hereby, granted.

And it is further ordered that the order denying certiorari, be, and the same is hereby, vacated; and that the petition for writ of certiorari herein be, and the same is hereby, granted.

And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1941

No. 155

ORDER GRANTING REHEARING AND CERTIORARI—November 10, 1941

On Petition for Writ of Certiorari to the United States Circuit Court of Appeals for the Seventh Circuit

A petition for rehearing having been submitted in this case;

Upon consideration thereof, it is ordered by this Court that the petition for rehearing be, and the same is hereby, granted.

And it is further ordered that the order denying certiorari, be, and the same is hereby, vacated; and that the petition for writ of certiorari herein be, and the same is hereby, granted.

And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1941

No. 156

ORDER GRANTING REHEARING AND CERTIORARI—November 10, 1941

On Petition for Writ of Certiorari to the United States Circuit Court of Appeals for the Seventh Circuit

A petition for rehearing having been submitted in this case;

Upon consideration thereof, it is ordered by this Court that the petition for rehearing be, and the same is hereby, granted.

And it is further ordered that the order denying certiorari, be, and the same is hereby, vacated; and that the petition for writ of certiorari herein be, and the same is hereby, granted.

And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

(7930)

FILE COPY

Office - Supreme Court, U. S.

FILED

JUN 11 1941

CHARLES F. MOORE, CLERK

**IN THE
SUPREME COURT OF THE UNITED STATES.**

OCTOBER TERM, 1941.

EXHIBIT SUPPLY COMPANY,

Petitioner,

vs.

ACE PATENTS CORPORATION

Respondent.

No. **154**

GENCO, INC.,

Petitioner,

vs.

ACE PATENTS CORPORATION

Respondent.

No. **155**

CHICAGO COIN MACHINE COMPANY,

Petitioner,

vs.

ACE PATENTS CORPORATION

Respondent.

No. **156**

**PETITION FOR WRITS OF CERTIORARI
To the United States Circuit Court of Appeals
for the Seventh Circuit
and**

BRIEF IN SUPPORT.

**CLARENCE E. THREEDY,
JOHN H. SUTHERLAND,
Attorneys for Petitioners.**

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IN THE
SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1941.

EXHIBIT SUPPLY COMPANY,	Petitioner,	} No.
vs.		
ACE PATENTS CORPORATION	Respondent.	

GENCO, INC.,	Petitioner,	} No.
vs.		
ACE PATENTS CORPORATION	Respondent.	

CHICAGO COIN MACHINE COMPANY,	Petitioner,	} No.
vs.		
ACE PATENTS CORPORATION	Respondent.	

PETITION FOR WRITS OF CERTIORARI

**To the United States Circuit Court of Appeals
for the Seventh Circuit.**

To the Honorable the Chief Justice of the United States
and the Associate Justices of the Supreme Court of the
United States:

Your petitioners, Exhibit Supply Company, Genco, Inc.,
and Chicago Coin Machine Company, respectfully pray for
writs of certiorari to the Circuit Court of Appeals for the
Seventh Circuit to review the judgments of that court en-
tered on March 12, 1941.

SUMMARY AND SHORT STATEMENT.

Respondent brought separate patent infringement suits against the three petitioners. The cases were consolidated for trial, as well as on appeal.

The patent in suit pertains to a switch for use in ball rolling games or the like.

The application for the patent in suit disclosed, in its specification and drawings, a device including "a coil spring having a leg" (R. 434-5) for electrical contact with "a conductor ring located in the table" (R. 435). As filed, the application suggested no alternative for that structure. All the original claims (R. 437-9) were limited to the spring with the leg.* The application was filed January 12, 1937. On February 27, 1937, one of Petitioners publicly marketed and advertised (Plaintiff's Exhibit 23, R. 357) a device of different† construction from that disclosed in the application (R. 159-160).

Thereafter, in June, 1937, the application was broadened by the amendatory insertion of a claim (R. 445) calculated to cover the intervening device. The solicitor confessed (R. 450-51) that other claims would be "avoided by taking the leg 19, separating it from the spring 18, and embedding it as a pin in the table," and admitted that the new claim was intended to cover such alternative structure. The Patent Office rejected the claim, holding as to the suggested alternative (R. 452) "no such structure has been brought out by the drawings or specification." That holding was

*Claim 1: "a spring including an extension."

Claim 2: "a pendant coil spring including an extension."

Claim 3: "a coil spring having a leg."

Claim 4: "a coil spring having a leg."

Claim 5: "a coil spring having a leg."

Claim 6: "a pendant coil spring having a depending leg."

†This (Plaintiff's Exhibit 5) is now charged to infringe. It differs from the device disclosed in the patent in suit essentially in that the spring has no leg, and the table has no ring, but has a nail for engagement with the spring.

acquiesced in—the claim further amended (R. 453) and allowed, as Claim 4 of the patent.

That claim, as originally presented, was broad in defining the relationship between the conductor and the table as “carried by the table”; but, pursuant to rejection, the claim was amended to limit that relationship to one in which the conductor was “embedded in the table” (R. 450).

Such is the history of the single claim in suit.

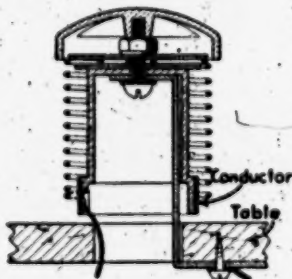
Decisions of the Courts Below.

The District Court held (R. 485) the patent valid and infringed, not only by the above-mentioned intervening device, but also by other and more remote devices, none of which had the originally claimed spring with a leg.† Thus the District Court accorded the patent in suit a wide range of equivalents, notwithstanding that the Court recognized the patent to be of no “great significance” (R. 487) in the art, and notwithstanding that by so holding the District Court in effect enlarged the claim back to its preamended scope.

The District Court refused in its decision (R. 485-86) to sustain the file wrapper estoppel defense, but made neither finding of fact nor conclusion of law anent it.

The Circuit Court of Appeals affirmed the District Court and reasoned that since the patentee had forecast (in the

†And as to whether the conductor is embedded in the table, we let the found-infringing structures speak for themselves. For example, Plaintiff's Exhibit 9 (R. 21) is here reproduced.



informal "Remarks" of an amendment filed after the appearance of Petitioners' intervening device) the alternative structure which Petitioners first adopted, the amendment (from "carried by the table" to "embedded in the table") did not limit the range of mechanical equivalents so as to exclude any fixed and unyielding relationship between the table and the conductor.

Thus the Court of Appeals has ruled that the doctrine of mechanical equivalents avails to enlarge the scope of a patent monopoly beyond the verbal bounds of the claim, notwithstanding that:

(a) To secure the allowance of the claim the patentee was compelled to restrict it in the very aspect which the Court of Appeals enlarges.

(b) The application was broadened after adverse rights of the public (derived through petitioners) had intervened.

QUESTIONS PRESENTED.

1. Is the scope of a patent limited by its claims or may it be enlarged therebeyond by the so-called doctrine of mechanical equivalents?

2. Does an informal remark (in one of the applicant's communications with the Patent Office) about an alternative structure, not originally suggested or claimed, render inapplicable the rule that, a claim which was rejected and surrendered during the pendency of an application cannot be revived and restored to a patent, either by construction or by applying the doctrine of mechanical equivalents of an allowed claim?

3. When, during the pendency of an application, the applicant presents a claim calculated to cover an alternative structure not disclosed in the original application, the Patent Office rules that the alternative structure is not

brought out by the specification or drawing, the ruling is acquiesced in, the claim amended to conform it to the specification, and as thus amended, allowed—is the patentee estopped to contend that the amended and allowed claim covers the alternative structure sought to be covered by the rejected and surrendered claim?

REASONS RELIED UPON FOR ALLOWANCE OF THE WRITS.

It is believed that the writs should be granted in these cases for the following reasons:

I.

The law with respect to mechanical equivalents is in a confused state. The doctrine that the scope of a patent monopoly may be enlarged beyond the verbal scope of the claims is an anomaly. It violates (Claude Neon Lights v. E. Machlett & Son, 36 F. 2d 574, C. C. A. 2) the underlying and necessary principle that the disclosure is open to the public, save as the claim forbids; and that it is the claim, and that alone, which measures the monopoly.

That doctrine had its inception in *Winans v. Denmead*, 56 U. S. 330. That was a five to four decision. Justice Campbell wrote a vigorous dissent, in which he (as experience has shown) correctly forecast "nothing . . . will be more mischievous, more productive of oppressive and costly litigation, of exorbitant and unjust pretensions and vexatious demands, more injurious to labor."

While this Court has not applied the doctrine of mechanical equivalents to enlarge the scope of a patent claim since 1892 (*Hoyt v. Horne*, 145 U. S. 302), its subsequent decisions* have never overruled *Winans v. Denmead*. Con-

*In *Hildreth v. Mastoras*, 257 U. S. 27; *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405, and *Sanitary Refrigerator Co. v. Winters*, 280 U. S. 30, this Court discussed the doctrine of equivalents, but refused to limit claims to less than their apparent verbal scope.

sequently, the lower courts have proceeded, and may be expected to continue, to enlarge the scope of patents beyond the plain verbiage of the claim upon the pretext of "mechanical equivalents," unless this court intercedes.

That the doctrine has been troublesome to the Courts is well illustrated by Judge Learned Hand's exposé of its anomalous and inconsistent character in *Claude Neon Lights v. Machlett*, *infra*, Brief pages 13-14. It has not only been perplexing to the Courts, but vexatious to industry, and, not infrequently, a source of false hope to inventors. It is safe to say that patent litigation would be markedly reduced if the doctrine of mechanical equivalents were either clarified or abolished.

It is of special importance at this time that this Court should seize an opportunity to take this uncertainty out of patent interpretation, so that the manufacturing public may know whether, when a thing is outside the language of a claim, it is or is not an infringement of the patent.

II.

The decision of the Circuit Court of Appeals subverts the basis of this Court's pronouncements with regard to amendments, and perverts what is normally an onus upon the patentee, into a benefit to him.

It is settled that after adverse rights of the public have intervened a patent applicant may not revise his description and broaden his claim to embrace the intervening device (*Schriber-Schroth v. Cleveland Trust*, 305 U. S. 47, and cases cited page 57). In fact, the court below has held a broadened claim to be invalid under such circumstances (*Automatic Devices Co. v. Sinko*, 112 F. [2d] 335).

The decision in the instant case, however, condones the same result, when, instead of formally amending the description to embrace such an alternative, the patentee informally mentions the alternative in the "Remarks" of

an amendment. Normally, an amendment adding a broadened claim would be regarded "with jealousy and disfavor" (*Railway Company v. Sayles*, 97 U. S. 554). Normally a limiting amendment to a claim (like from "carried by" to "enbedded in") would be "strictly construed against the inventor, and in favor of the public" (*Shepard v. Carrigan*, 116 U. S. 598). But the Circuit Court of Appeals has here held that the informal mention of petitioners' device (undisclosed and unclaimed in the original application) in one of the communications to the Patent Office not only brings that device within the patent, but renders an otherwise limiting amendment unimportant. Thus the Court has not only permitted the patentee to do informally what he could not do formally, but has used the informal suggestion to enlarge the range of equivalents as if it had been a part of the original application.

This is a new interpretation. If it is right, this Court should approve it, so that patent applicants may, with confidence, adopt the practice and gain the advantage. If, as we think, it is wrong, this Court should hasten to overrule the practice, before it becomes widespread. It is of paramount importance to every member of the patent dealing public that this Court approve or disapprove such a radical departure from what we think is the basis of the established law.

PRAYER.

Wherefore, your Petitioners respectfully pray that writs of certiorari be issued to the United States Circuit Court of Appeals for the Seventh Circuit to the end that these causes may be reviewed and determined by this Court; that the decrees of the Circuit Court of Appeals for the Seventh Circuit be reversed, and that petitioners be granted such other and further relief as may be proper.

**EXHIBIT SUPPLY COMPANY,
GENCO, INC.,
CHICAGO COIN MACHINE COMPANY,**

**By CLARENCE E. THREEEDY,
111 West Washington Street,
Chicago, Illinois,**

**JOHN H. SUTHERLAND,
1004 Market Street,
St. Louis, Missouri,
Attorneys for Petitioners.**

IN THE
SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1941.

EXHIBIT SUPPLY COMPANY,

Petitioner,

vs.

ACE PATENTS CORPORATION

Respondent.

No.

GENCO, INC.,

Petitioner,

vs.

ACE PATENTS CORPORATION

Respondent.

No.

CHICAGO COIN MACHINE COMPANY,

Petitioner,

vs.

ACE PATENTS CORPORATION

Respondent.

No.

**BRIEF IN SUPPORT OF PETITION FOR
WRITS OF CERTIORARI.**

OPINIONS OF COURTS BELOW.

The opinion of the District Court is found at R. 485. It is reported at 45 U. S. Patent Quarterly* 601.

The District Court's Findings of Fact and Conclusions of Law in the three cases extend from R. 488 to R. 515, but are substantial duplicates of each other in the respective cases.

The opinion of the Circuit Court of Appeals is reported

at 48 U. S. Patent Quarterly* 667, and appears at pages 670 to 679 of the Record.

JURISDICTION.

The judgment of the Circuit Court of Appeals was entered March 12, 1941.

The statute giving jurisdiction is Section 240-A of the Judicial Code (28 U. S. Code, Sec. 347); *Schriber-Schroth v. Cleveland Trust Co. et al.*, 305 U. S. 47.

STATEMENT OF THE CASE.

The foregoing Petition contains a summary of the material facts necessary to an understanding of the reasons relied upon for the allowance of the writ, as well as a statement of questions involved in the case.

SPECIFICATION OF ERRORS.

1. That the Circuit Court of Appeals erred in allowing an informal remark about Petitioners' structure (not originally described or claimed) to deprive a limiting amendment of its effect as a file wrapper estoppel.

2. That the Circuit Court of Appeals erred in applying the doctrine of mechanical equivalents to enlarge the monopoly of the patent in suit beyond anything described or claimed in the original application.

3. That the Circuit Court of Appeals erred in failing to hold that Respondent was estopped by the file wrapper history from contending that Petitioner's device (which was informally mentioned to the Patent Office and ruled out) is within the scope of the claim in suit.

4. That the Circuit Court of Appeals erred in affirming and in not reversing the judgment of the District Court.

*It has not yet appeared in the Federal Reporter Series.

ARGUMENT.

I.

The Doctrine of Mechanical Equivalents Is Incompatible With the Doctrine That the Patent Claim Measures the Invention; and Enlargement of a Patent Monopoly to Embrace Mechanical Equivalents, Not Within the Plain Terms of the Claim, Is a Relaxation of the Statutory Requirements.

No statute defines infringement. Section 4888 of the Revised Statutes (35 United States Code 33) does require that a patentee "shall particularly point out and distinctly claim the part, improvement or combination which he claims as his invention."

The purpose has been stated by this Court as:

" 'to inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.' *Permutit Co. v. Graver Corporation*, 284 U. S. 52, 60. It follows that the patent monopoly does not extend beyond the invention described and explained as the statute requires. *Permutit Co. v. Graver Corporation*, *supra*, at 57. That it cannot be enlarged by claims in the patent not supported by the description. *Snow v. Lake Shore & M. S. Ry. Co.*, 121 U. S. 617; cf. *Smith v. Snow*, 294 U. S. 1" (*Schriber-Schroth Co. v. Cleveland Trust Co. et al.*, 305 U. S. 47, *l. c.* 57).

Thus it would seem that nothing is an infringement of a patent which is not embraced by its claim.

But there is another line of cases, beginning with *Winans v. Denmead*, 56 U. S. 330, which hold that a mechanical equivalent of the thing disclosed in a patent is an infringement, even though it is not embraced by the language of

the claim. That this is wholly inconsistent with the principle that the invention must be claimed, and that it constituted a relaxation of the requirements of the statute, was recognized at the outset. In the dissenting opinion of Mr. Justice Campbell (concurring in by Mr. Chief Justice Taney, Mr. Justice Catron, and Mr. Justice Daniel) in *Winans v. Denmead*, this was pointed out as follows:

“The patentee, not exaggerating the theoretical superiority of the form of his car, overlooked those facts which reduced its practical value to the level of cars of a form widely variant from his own. The object of this suit is to repair that defect of observation. It is, that this court shall extend, by construction, the scope of operation of his patent, to embrace every form which in practice will yield a result substantially equal or approximate to his own.” L. c. 346.

“• • • The patentee is obliged, by law, to describe his invention, in such full, clear and exact terms, that from the description, the invention may be constructed and used. Its principle and modes of operation must be explained; and the inventor shall particularly ‘specify and point’ out what he claims as his invention. Fulness, clearness, exactness, preciseness and particularity, in the description of the invention, its principle, and of the matter claimed to be invented, will alone fulfill the demands of Congress or the wants of the country. Nothing, in the administration of this law, will be more mischievous, more productive of oppressive and costly litigation, of exorbitant and unjust pretensions and vexatious demands, more injurious to labor, than a relaxation of these wise and salutary requisitions of the act of Congress. In my judgment, the principles of legal interpretation, as well as the public interest, require that this language of this statute shall have its full significance and import.”

That there is conflict between the doctrine of equivalents and the doctrine that a patent is limited by its claims has

been recognized by some of the Courts: *Otis Elevator Co. v. Atlantic Elevator Co., Inc.*, 47 F. (2nd) 545 (C. C. A. 2); *Oates v. Camp*, 83 F. (2nd) 111 (C. C. A. 4), and *Directorate Corp. v. Donaldson Lithographing Co.*, 51 F. (2nd) 199, 1 c. 202 (C. C. A. 6). Judge Learned Hand fully exposed this fundamental conflict in his decision in *Claude Neon Lights v. E. Machlett & Son et al.*, 36 F. (2nd) 574. The length of the quotation is acquitted by its clarity and appositeness:

“ . . . The doctrine of equivalents, though well settled for many years, is anomalous, if the claim is measured only by its words, and for this reason we once went so far as to say that it means no more than that the language of claims shall be generously construed. *Motion Pictures Co. v. Independent Co.*, 200 F. 411 (C. C. A. 2). Such a limitation is, however, irreconcilable with those extremely numerous decisions which have extended a claim to structures which by no possibility it could cover, judged by any tenable canons of documentary interpretation. *Winans v. Denmead*, 15 How. 330, 343, 14 L. Ed. 717; *Blake v. Robertson*, 94 U. S. 728, 24 L. Ed. 245; *Clough v. Gilbert & B. Mfg. Co.*, 106 U. S. 166, 1 S. Ct. 188, 27 L. Ed. 134; *Royer v. Schultz Belting Co.*, 135 U. S. 319, 10 S. Ct. 833, 34 L. Ed. 214; *Hoyt v. Horne*, 145 U. S. 302, 12 S. Ct. 922, 36 L. Ed. 713; *Reece Button-Hole Mach. Co. v. Globe Button-Hole Mach. Co.*, 61 F. 958 (C. C. A. 1); *McCormick Harvesting Mach. Co. v. C. Aultman & Co.*, 69 F. 371 (C. C. A. 6); *McSherry Mfg. Co. v. Dowagiac Mfg. Co.*, 101 F. 716 (C. C. A. 6). ”

“ It is plain that such latitude violates in theory the underlying and necessary principle that the disclosure is open to the public save as the claim forbids, and that it is the claim and that alone which measures the monopoly. *Keystone Bridge Co. v. Phoenix Iron Co.*, 95 U. S. 274, 278, 24 L. Ed. 344; *Yale Lock Co. v. Greenleaf*, 117 U. S. 554, 559, 6 S. Ct. 846, 29 L. Ed.

952; *White v. Dunbar*, 119 U. S. 47, 52, 7 S. Ct. 72, 30 L. Ed. 303; *McClain v. Ortmyer*, 141 U. S. 419, 424, 12 S. Ct. 76, 35 L. Ed. 800; *Minerals Separation v. Butte etc. Co.*, 250 U. S. 336, 350, 39 S. Ct. 496, 63 L. Ed. 1019. The vacillation in the decisions is a necessary consequence of this inconsistency in theory, somewhat analogous to the similar inconsistency which pervades reissues and amendments. It is the claim which singles out from the complex disclosed those elements which constitute the 'invention,' and substantially the whole work of the Patent Office lies in determining, not whether the disclosure is new because all of it never is, but whether the claims proposed are. Strictly the disclosure should be used therefore only as the setting of the claims and to find what the words employed really mean. Otherwise courts would have to assume the duties of the office afresh and compose such claims as the prior art might have allowed, had the patentee been foresighted enough to include all possible variants of his meaning. Such a result the decisions have repeatedly repudiated, and it would result in an intolerable burden upon the public, which would be charged not only with a knowledge of the prior art at the time of the application and often earlier, but with a right conclusion as to how much room was left for invention, seldom an easy question."

He concluded that the doctrine of equivalents is applied "in misericordiam to relieve those who have failed to express their complete meaning."

More recently, in *Keith v. Charles E. Hires & Co., Inc.*, 116 F. (2) 46, Judge Learned Hand has again pointed out:

"* * * While it is sometimes said that every claim has some range of equivalents, it is as often said that one may not wholly disregard any element of a claim. Without seeking to reconcile that conflict * * *"

The pronouncements in this Court's recent decisions

(Schriber-Schroth v. Cleveland Trust Co. et al., 305 U. S. 47; Schriber-Schroth v. Cleveland Trust Co. et al., 311 O. S. 211; General Electric v. Wabash, 304 U. S. 364, and Permutit v. Graver Corp., 284 U. S. 52) seem to require strict compliance of the statutory requirements. If that be so, the doctrine of mechanical equivalents is passé, at least in so far as it has been and still is being used to enlarge the monopoly of a patent beyond the plain language of its claim. Otherwise, the claim is a vain thing, and the statute requiring it is impotent.

II.

The Doctrine of File Wrapper Estoppel Cannot be Negatived and a Patent Converted From Narrow to Broad by an Informal Remark Made in a Communication to the Patent Office, When the Substance of the Remark, If Made as a Formal Amendment to the Specification, Would Have Destroyed the Patent.

The claim in suit here is limited (verbally, at least) to devices wherein the conductor is actually embedded in the table. This is because the claim originally called for a conductor merely "carried by" the table, and in compliance with the requirement of the Patent Office was limited to an arrangement in which the conductor was "embedded in the table."

But the Court of Appeals reasoned, in this case, that because the applicant "forecast" an alternative structure (not originally described or claimed in the application) the teeth are not only taken out of the estoppel, but the word "embedded" comes to mean anything which has a fixed and unyielding relation.

The "forecast" to which the Circuit Court of Appeals refers was the reference (in one of the communications with the Patent Office) (R. 450.1) to a structure such as

Petitioners were then marketing (and is here held to infringe). It was not as formal amendment to the application, but was an informal "remark." Had this been done as a formal amendment Respondent would have been clearly within the rule that an

"application for patent cannot be broadened by amendment so as to embrace an invention not described in the application as filed, at least when adverse rights of the public have intervened" (Schriber-Schroth v. Cleveland Trust Co., 305 U. S. 47, and cases cited page 57).

To have so formally amended the specification would have brought the case within the rule of Powers Kennedy Contracting Co. et al. v. Concrete Mixing and Conveying Co.* (282 U. S. 175), where this Court said:

"This of itself destroys the patent."

Unless there is some magic in doing informally what could not be done formally, the ruling of the Court of Appeals violates several well-settled rules:

(a) That a rejected-amended-allowed claim cannot be restored to its preamended scope by construction (Schriber-Schroth v. Cleveland Trust Co. et al., 61 Sup. Ct. 235, 311 U. S. 211).

(b) That a rejected-amended-allowed claim cannot be restored to its preamended scope by resort to the doctrine of equivalents (Smith v. Magic City Kennel Club, 282 U. S. 784).

(c) That an amendment after rejection is to be strictly construed against the inventor, and in favor of the public; and looked upon as in the nature of a disclaimer (Smith v. Magic City Kennel Club, 282 U. S. 784; Shepherd v. Carrigan, 116 U. S. 593, 598,

*Under such circumstances the broadened claim was held invalid in Automatic Devices Co. v. Sinko, 112 F. (2d) 335.

and *Sargent v. Hall Safe and Lock Company*, 114 U. S. 63).

(d) That where an original application shows but one form, and discloses no alternatives, the patent is to be restricted to that form (*Snow v. Lake Shore & M. S. Ry. Co.*, 121 U. S. 617, 630, cited with approval, *Schriber-Schroth v. Cleveland Trust*, 305 U. S. 47; l. c. 57).

(e) That a patent which is not of "great significance" (R. 487) in the art must be strictly construed, and limited to a narrow range of equivalents (*Miller v. Eagle Manufacturing Co.*, 151 U. S. 186; *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405).

(f) That when the terms of the claim are clear and distinct, the patentee is bound by the plain meaning of the same (*Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405; *Keystone Bridge Company v. Phoenix Iron Company*, 95 U. S. 274).

The claim in suit was injected into the application for the stated purpose of attempting to cover devices of a type here accused. Considering the claim on the basis of the purpose stated by the Applicant, as well as in the light of the disclosure of the application, the Patent Office rejected it, pointing out:

"Claim 7 . . . rejected as describing an inoperative structure in view of the applicant's disclosure. . . . It is true as the applicant suggested that if the portion 19 were removed from the spring and embedded in the table an operative device would result but no such structure has been brought out by the drawing or specification" (R. 452).

Without traverse, the claim was then amended to conform it to the device originally disclosed. Manifestly, the Patent Office considered this surrender as the equivalent of

a disclaimer; but the effect of the decision of the Court below is to allow the patentee to retract that disclaimer.

The rejected-amended-allowed claim here in suit was not only broader, when presented, than any claim in the case as filed, but remained broader after the amendment. Hence the claim remains subject to the rule that it must be regarded "with jealousy and disfavor" (*Railway Company v. Sayles*, 97 U. S. 554), which is the very antithesis of what the Court below has done. Any one of several rules of law would have operated to restrict this patent in suit had the patentee not made his informal "forecast." Had the "forecast" been made by formal amendment to the specification, the patent would have been destroyed. No canon of law or logic will sustain the proposition that when formality will destroy, informality will not only save, but improve.

CONCLUSIONS.

From the foregoing, we submit, it appears that the decision of the Circuit Court of Appeals for the Seventh Circuit is inconsistent with the policy of the patent laws in respects which are important, not only to these petitioners, but to the public, inventors and industry at large.

Wherefore your petitioners pray that their petition be granted, that the Writs of Certiorari be issued, and the causes reviewed, and the decrees of the Court of Appeals reversed.

Respectfully submitted,

CLARENCE E. THREEDY,

JOHN H. SUTHERLAND,

Attorneys for Petitioners.

June 9, 1941.



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SEP 18

CHARLES E. THREEDY, JEFFREY

IN THE
SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1941.

EXHIBIT SUPPLY COMPANY,	Petitioner,	} No. 154.
vs.		
ACE PATENTS CORPORATION,	Respondent.	}
GENCO, INC.,	Petitioner,	} No. 155.
vs.		
ACE PATENTS CORPORATION,	Respondent.	}
CHICAGO COIN MACHINE COMPANY,	Petitioner,	} No. 156.
vs.		
ACE PATENTS CORPORATION,	Respondent.	}

REPLY BRIEF FOR PETITIONERS

Re Petition for Writ of Certiorari to the United States
Circuit Court of Appeals for the Seventh Circuit.

CLARENCE E. THREEDY,
JOHN H. SUTHERLAND,
Attorneys for Petitioners.

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IN THE
SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1941.

EXHIBIT SUPPLY COMPANY, vs. ACE PATENTS CORPORATION, GENCO, INC., vs. ACE PATENTS CORPORATION, CHICAGO COIN MACHINE COMPANY, vs. ACE PATENTS CORPORATION,	Petitioner, Respondent.	}	No. 154. No. 155. No. 156.
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REPLY BRIEF FOR PETITIONERS

Re Petition for Writ of Certiorari to the United States
Circuit Court of Appeals for the Seventh Circuit.

To the Honorable the Chief Justice of the United States
and the Associate Justices of the Supreme Court of the
United States:

**Respondent's Assertion That This Is an Ordinary Patent
Case Is Contradicted by Its Admission (Brief page 10)
That " 'The Reasons Relied Upon for Allowance of
the Writs' Are Primarily Reasons of Policy, etc.' "**

No ordinary patent case would present a question or rea-
son of policy under the patent laws.

No ordinary patent case would present a question of the propriety of a court-made doctrine, recognized in its inception as contrary to the statutes, and the inconsistent and anomalous character of which has been repeatedly pointed out by the lower courts.

No ordinary patent case would involve a situation where the lower court condones an enlargement of the claimed invention to engulf an intervening device, simply because the intervening device had been mentioned in the transactions with the Patent Office.

In truth, this is an extraordinary patent case.

The Petition Presents No Issue of Fact.

That it is not necessary for this court to consider any issue of fact may be demonstrated by the statement of three succinct points of fact:

1. A point of fact which Respondent concedes (Brief page 3) is that the claim in suit does not read upon the accused devices, Exhibits 8 and 9.
2. A point of fact which was determined by the court below is that the claim in suit does not read literally upon the accused devices, Exhibits 6 and 10. We rest upon the finding of the Circuit Court of Appeals.
3. A point of fact which was determined by the court below and which we do not controvert here is that the claim in suit, when construed by dictionary, does read literally upon the accused devices, Exhibits 5 and 7.

The aforesaid first point of fact provides the factual basis for the first of the "Questions Presented" by the

- **Record page 678.** "With respect to . . . Exhibits 6 and 10, it may be said that . . . appellants have cut a large hole in the pin table at the point where the conductor is normally embedded and have covered this hole with an additional plate of metal which is secured to a pin table by the standard, and they have embedded the conductors in this metal plate."

Petition (Petition page 4). Either the first or the second of the aforesaid points of fact provides the factual basis for the second of the "Questions Presented." The third of the aforesaid points of fact provides the factual basis for the third of the "Questions Presented."

The Patent in Suit Represents a Case of Broadening an Application After Adverse Rights of the Public Had Intervened.

It is undisputed that the claims of the patent application, as filed, failed to comprehend any of Petitioners' accused devices. It is undisputed that, after Respondent knew of Petitioners' device (Exhibit 5, Exhibit 23, R. 357), Respondent broadened its claim for the ostensible purpose (R. 450-1) of ensnaring Petitioners' device.

If Respondent had amended its specification to say what was said informally in the "Remarks" of an amendment, there could be no dispute about the applicability of the doctrine of *Schriber-Schroth v. Cleveland Trust Co. et al.*, 305 U. S. 47. The question is, therefore, whether intervening rights of the public can be rendered nugatory by doing informally what could not be done formally.

The File Wrapper Estoppel Defense Is Not Urged With Reference to Exhibits 5 and 7 Upon Which the Court Below Held the Claim Readable.

Respondent says:

"The only significant alteration in the claim is that in which the term 'carried by' was altered to 'embedded in' the table" (Respondent's Brief, page 6).

That is the alteration which we insist estops Respondent from contending that a device whose conductor is not embedded in the table, is an infringement.

The Enlargement of a Patent Monopoly Beyond the Plain Terms of the Claim Is the Only Aspect of the Doctrine of Mechanical Equivalents Which Petitioners Seek to Have Clarified or Abolished.

The first question presented by the Petition reads as follows:

“1. Is the scope of a patent limited by its claims or may it be enlarged therebeyond by the so-called doctrine of mechanical equivalents?”

The question presented is not affected by any precedent or host of precedents where the claim in suit actually read upon the accused device, as in:

Smith v. Snow, 294 U. S. 1;

Sanitary Refrigerator Co. v. Winters, 280 U. S. 30;

Eibel Process Co. v. Minnesota & Ontario Paper Co.,
261 U. S. 45;

Hildreth v. Mastoras, 257 U. S. 27;

Abercrombie & Fitch Co. v. Baldwin, 245 U. S. 198;

Continental Paper Bag Co. v. Eastern Paper Bag
Co., 210 U. S. 405;

Hobbs v. Beach, 180 U. S. 383;

Deering v. Winona Harvester Works, 155 U. S. 286;

all cited by Respondent, Brief pages 10-11.

On the contrary, the question presented involves the correctness of the doctrine of *Winans v. Denmead*, 56 U. S. 330; *Ives v. Hamilton*, 92 U. S. 426, and *Hoyt v. Horne*, 145 U. S. 302. As pointed out in the Petition, this court recognized at the time of its decision in *Winans v. Denmead* that the doctrine then adopted by it was inconsistent with the dictates of the statute.

Long prior to *Winans v. Denmead*, this court had ruled that an accused device was not an infringement of a patent, notwithstanding that it came within the claim, if it was not an equivalent (*McCormick v. Talcott*, 20 Howard 402; *Burr v. Duryee*, 1 Wallace 531). Petitioners here do not question the propriety of the rule that an accused

device which is not the equivalent of that disclosed in the patent is not an infringement, the words of the claim to the contrary notwithstanding. However, Petitioners contend that an accused device is not an infringement of a patent, albeit an equivalent to the device disclosed therein, if it does not respond to the plain terms of the claim.

Petitioners contend that, to establish infringement as a matter of law, an accused device must:

1. Respond to the plain terms of the claim, and
2. Be an equivalent of that which is disclosed in the patent.

Either without the other is insufficient to establish infringement. Conceding, for the sake of argument, that the devices here accused are used to produce the same effect as the device disclosed in the patent, the charge of infringement must fail because the devices (Exhibits 6, 8, 9 and 10) do not respond to the plain terms of Respondent's claim.

Conclusion.

We repeat that it is safe to say that patent litigation would be markedly reduced if the doctrine of mechanical equivalents were either clarified or abolished. To respondent's repartee that "all litigation would be markedly reduced if all legal doctrines were either clarified or abolished," we suggest that, in the march of jurisprudence toward the goal of perfection (simplicity), this Court has contributed greatly to the reduction of all litigation by just such clarification and abolition of anomalous legal doctrines, as we pray the Court to review in this case.

Respectfully submitted,

CLARENCE E. THREEDY,
JOHN H. SUTHERLAND,
Attorneys for Petitioners.

September 13, 1941.

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FILED

NOV 19 1941

CHARLES ELMORE CRADLEY
CLERK

IN THE
Supreme Court of the United States

OCTOBER TERM, A. D. 1941

EXHIBIT SUPPLY COMPANY,

Petitioner,

vs.

ACE PATENTS CORPORATION,

Respondent.

No. 154

GENCO, INC.,

Petitioner,

vs.

ACE PATENTS CORPORATION,

Respondent

No. 155

CHICAGO COIN MACHINE COMPANY,

Petitioner,

vs.

ACE PATENTS CORPORATION,

Respondent.

No. 156

**BRIEF IN OPPOSITION TO RESPONDENT'S MOTION TO
DISMISS WRITS OF CERTIORARI.**

✓ CLARENCE E. THREEEDY,

✓ JOHN H. SUTHERLAND,

Counsel for Petitioners.

IN THE
Supreme Court of the United States

OCTOBER TERM, A. D. 1941

EXHIBIT SUPPLY COMPANY,

vs. *Petitioner,*

ACE PATENTS CORPORATION,

Respondent.

No. 154

GENCO, INC.,

vs. *Petitioner,*

ACE PATENTS CORPORATION,

Respondent.

No. 155

CHICAGO COIN MACHINE COMPANY,

vs. *Petitioner,*

ACE PATENTS CORPORATION,

Respondent.

No. 156

**BRIEF IN OPPOSITION TO RESPONDENT'S MOTION TO
DISMISS WRITS OF CERTIORARI.**

*To the Honorable the Chief Justice of the United States
and the Associate Justices of the Supreme Court of the
United States:*

Contrary to the unfounded inference in the second sentence of the motion, respondent had ample time to reply to the Petition for Rehearing herein. The Petition

for Rehearing was received by counsel for respondent on October 29, 1941. The Court did not act upon it until November 10, 1941. That is more time than the Rules of this Court provide for reply briefs on the merits (Rule 27-4).

There is nothing unusual about a verified showing re concentration of industry in a petition for rehearing. Such was done in *Schriber-Schroth v. Cleveland Trust Co. et al.*, 305 U. S. 47. The annexed affidavit of John H. Sutherland demonstrates that such a showing was in good faith omitted from the original Petition here.

Without burdening the Court with an extended answer to respondent's premature argument of the case, we make the following succinct observations anent the numbered paragraphs of the motion:

I.

We pointed out in our Reply Brief (p. 2) that this case presented no issue of fact. Respondent cites nothing which would require that this Court "become a trier of disputed facts" in this case.

II.

Concurring decisions of the lower courts do not mitigate the importance or the unsettled character of the questions of law presented by the Petition.

III.

That the root of the pin table business is in the Seventh Circuit seems conceded. That there may be users, repairmen, jobbers or distributors in every state is no more true here than was the case with pistons (*Schriber-*

Schroth v. Cleveland Trust Co. et al., 305 U. S. 47); motion picture projectors (*Altoona Publix Theatres v. American Tri-Ergon Corp.*, 294 U. S. 477); or outboard motors (*Muncie Gear Works, Inc., et al. v. Outboard, Marine & Mfg. Co.*, No. 323).

IV.

In our Petition for Rehearing (p. 5) we advised the Court of pertinent factual differences between the intervening rights situation presented here and in the Muncie case. Respondent's motion ~~adds nothing~~ save the erroneous statement that the record contains no evidence of intervening rights. On the contrary, see Exhibit 23 (Rec. 357); Exhibit 24 (Rec. 361); Exhibit 25 (Rec. 363). See also Rec. 91.

Petitioners are under a (superseded) injunction. That petitioners may not presently be manufacturing the found-infringing structures does not render the case moot. The same situation existed in *Schriber-Schroth v. Cleveland Trust Co. et al.*, 305 U. S. 47 and 311 U. S. 211.

In view of the foregoing, it is respectfully submitted that the respondent's motion should be overruled.

Respectfully submitted,

EXHIBIT SUPPLY COMPANY,
GENCO, INC.,
CHICAGO COIN MACHINE COMPANY,

.....
By CLARENCE E. THREEDY,

.....
JOHN H. SUTHERLAND,
Counsel for Petitioners.

November 17, 1941.

AFFIDAVIT OF JOHN H. SUTHERLAND.

STATE OF ILLINOIS, }
COUNTY OF COOK. } ss.

JOHN H. SUTHERLAND, being duly sworn, deposes and says that he is counsel for petitioner in the above-entitled cases and was counsel for petitioner in *Schriber-Schroth v. Cleveland Trust Co. et al.*, 305 U. S. 47, and 311 U. S. 211;

Affiant states that when the petition for writ of certiorari in these cases was originally prepared he was under the mistaken impression that the industry in question here was not concentrated in the Seventh Circuit; that this mistaken impression arose from the fact that an advertisement of the Pacent Novelty Mfg. Company of Utica, New York, appeared in the record at page 397;

That he was not advised that said Pacent Novelty Mfg. Co. had gone out of business so that the industry became concentrated in the Seventh Circuit until on or about October 24, 1941.

.....
JOHN H. SUTHERLAND,

SUBSCRIBED and sworn to before me this 17th day of November, 1941.

LESLIE M. HANSEN,
Notary Public.

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DEC 26 1941

CHARLES ELMORE CROPLEY
CLERK

**IN THE
SUPREME COURT OF THE UNITED STATES.**

OCTOBER TERM, 1941.

EXHIBIT SUPPLY COMPANY,
Petitioner,
vs. } No. 154.

ACE PATENTS CORPORATION,
Respondent. }

GENCO, INC.,
Petitioner,
vs. } No. 155.

ACE PATENTS CORPORATION,
Respondent. }

CHICAGO COIN MACHINE COMPANY,
Petitioner,
vs. } No. 156.

ACE PATENTS CORPORATION,
Respondent. }

BRIEF FOR PETITIONERS.

**CLARENCE E. THREEDY,
JOHN H. SUTHERLAND,**
Attorneys for Petitioners.

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IN THE
SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1941.

EXHIBIT SUPPLY COMPANY,	Petitioner,	}	No. 154.
vs.			
ACE PATENTS CORPORATION,	Respondent.	}	No. 155.
GENCO, INC.,	Petitioner,		
vs.		}	No. 156.
ACE PATENTS CORPORATION,	Respondent.		
CHICAGO COIN MACHINE COMPANY,	Petitioner,	}	No. 156.
vs.			
ACE PATENTS CORPORATION,	Respondent.	}	

BRIEF FOR PETITIONERS.

To the Honorable the Chief Justice of the United States
and the Associate Justices of the Supreme Court of
the United States;

These patent infringement suits are here on Writs of
Certiorari to the Seventh Circuit Court of Appeals.

OPINIONS OF THE COURTS BELOW.

The opinion of the District Court, holding validity and
infringement, is reported in 45 U. S. Patent Quarterly 601
(R. 485).

The opinion of the Circuit Court of Appeals, which affirmed the District Court, is reported in 119 F. (2d) 349 (R. 670).

JURISDICTION.

The date of the judgments to be reviewed is March 12, 1941; rehearing denied May 16, 1941.

The Writs of Certiorari were granted by this Court on November 10, 1941.

The jurisdiction of this Court is invoked under Judicial Code, Section 240 (a), 28 U. S. C. A. 347, as amended by the Act of February 13, 1935.

STATEMENT OF THE CASE.

Respondent brought separate patent infringement suits upon the Nelson patent No. 2,109,678 against the three Petitioners. The cases were consolidated for trial, as well as on appeal. The patent in suit relates to a switch for use in ball rolling games (commonly called "pin ball machines"). Such switches are actuated to close an electrical circuit upon being contacted by a moving object, such as a ball rolling on a table.

The switch disclosed in the patent in suit is, in essence, like the prior Bolo device, Exhibit 35 (R. 469), differing therefrom in the location of parts. In each the switch includes a support attached to the table, a coil spring associated therewith and adapted to be flexed when a ball hits the target. The spring is electrically connected with a depending leg or extension* which, upon flexure of the spring, engages a stationary conductor to close an electric circuit. In the Bolo device, the stationary conductor took the form of a hole in a metal plate carried by the underside of the table. In the Nelson patent in suit, the stationary conductor took the form of a metal ferrule, embedded in

*In the accused devices there is no depending leg or extension.

the table.** While Nelson's spring is located above, and the Bolo spring below, the table, both do the same thing in the same way; that is to say, in each the spring flexes to close a circuit and, upon reflexing, causes rebounding of the ball upon the table.

In view of the prior art, the claims of the Nelson application, as filed, were each limited to details of construction.

On February 27, 1937 (after the Nelson application was filed), one of Petitioners publicly marketed and advertised (Exhibit 23, R. 357) a device (exemplified by Exhibit 5) of different construction from that disclosed in the application. It differs from the device disclosed in the patent in suit essentially in that the spring has no leg, and the stationary conductor is not a ferrule embedded in the table, but is a nail driven into the table. In that intervening device the lower end of the coil spring **terminated at a distance above the top surface of the table.**

No claim of Nelson's application, as filed, covered the intervening device.

The application, as originally filed, met with rejection (R. 443). Certain of the claims (not here in suit) were amended on June 12, 1937 (R. 444-5), and subsequently allowed (R. 449). At the same time (R. 445) Nelson added a new claim (numbered 7), which, as later amended, became the single claim here in suit. Unlike the originally presented claims, and unlike the device shown by Nelson (but like Petitioner's intervening device), this new claim did not include the feature of a leg or extension on the spring, but, on the contrary, recited that the spring **terminated "at a distance above the top surface of the table."** Additionally, the new claim specified that the stationary

**In the devices held to infringe, the stationary conductor takes the form of a nail driven in the table (Exhibits 5 and 7) or of a pin carried by a plate resting on the top of the table (Exhibits 8 and 10) or of a collar suspended above the table by a bracket attached to the underside of the table (Exhibits 3 and 9).

conductor should be **"carried by the table"**—and engageable by a portion of the spring.

This new claim was rejected as failing to comply with Section 4888 of the Revised Statutes (R. 449-50), the Examiner saying:

"It is old in the art to make an electrical contact by flexing a coil spring as shown by the art already cited in the case. In order to distinguish over the references therefor, the applicant's particular type of contact structure, comprising an **extension on the coil spring** adapted to engage an annular contact **embedded in the table**, must appear in the claims. Such structure is absent from the above rejected claims 2 and 7."

Thereupon, the new claim was amended to limit it to a structure wherein the stationary conductor was **"embedded in the table"** rather than being merely **"carried by"** the table (R. 450). In the informal remarks which accompanied this amendment, Nelson admitted to the Patent Office that he was attempting to cover a structure like Petitioner's intervening device, (Exh. 5, R. 51, and Exh. 7, R. 15), saying:

"Each of the allowed claims can, it seems, be very simply avoided by taking the leg 19, separating it from the spring 18 and embedding it as a pin in the table so that the spring when flexed would contact the pin" (R. 450, 451).

The claim still met with rejection, the Examiner saying:

"These claims call for a pendantsly mounted coil spring terminating at a distance above the top surface of the table and having a portion thereof engaging a conductor embedded in the table. With the type of conductor disclosed, such a structure would be inoperative as the coil spring could not both terminate at a distance above the table and extend into a ferrule embedded therein. It is true as the applicant sug-

*Emphasis supplied throughout unless otherwise indicated.

gested that if the portion 19 were removed from the spring and embedded in the table an operative device would result but **no such structure has been brought out by the drawing or specification**" (R. 452).

Thereupon the claim was further amended to cancel the provision that the coil spring should terminate "at a distance above the top surface of the table" (R. 453), and, as thus amended, the claim was allowed.

Decisions of the Courts Below.

The District Court held (R. 485) the patent valid and infringed, not only by the above mentioned intervening device (Exhibit 5) and one like it (Exhibit 7), but also by other and more remote devices, in which the stationary conductor was mounted in a separate plate (Exhibits 6 and 10) or took the form of a collar embracing the spring support and positioned above the table top (Exhibits 8 and 9). In all of the accused devices electric contact between the spring and the stationary conductor is made well above the top surface of the table, as distinguished from being made at or near the bottom surface of the table, as in the Nelson device.

The District Court accorded the patent in suit a wide range of equivalents and held infringement, notwithstanding that the claim in suit did not read upon the accused devices. By holding infringement, the lower Court enlarged the claim back to its preamended scope.

The District Court refused, in its decision, to limit the scope of the patent in suit in view of its file wrapper history.

The Circuit Court of Appeals affirmed the District Court, holding that the amendment of the claim in suit did not exclude Exhibits 5 and 7, and that Exhibits 6, 8, 9 and 10, although not covered by the claim, infringed because they were mechanically equivalent structures.

**SPECIFICATION OF THE ASSIGNED ERRORS
TO BE URGED.**

1. That the Circuit Court of Appeals erred in allowing an informal remark about Petitioner's structure (not originally described or claimed) to deprive a limiting amendment of its effect as a file wrapper estoppel.

2. That the Circuit Court of Appeals erred in applying the doctrine of mechanical equivalents to enlarge the monopoly of the patent in suit beyond anything described or claimed in the original application.

3. That the Circuit Court of Appeals erred in failing to hold that Respondent was estopped by the file wrapper history from contending that Petitioner's device (which was informally mentioned to the Patent Office and ruled out) is within the scope of the claim in suit.

4. That the Circuit Court of Appeals erred in affirming and in not reversing the judgment of the District Court.

SUMMARY OF ARGUMENT.

A summary of Petitioners' Argument appears in the captions of the two points, which are set forth in the "Argument." It is not thought feasible to expand the summary beyond these captions without unduly lengthening this brief and resorting to very considerable repetition.

ARGUMENT.

The Petition for the Writs questioned the doctrine of mechanical equivalents and presented an issue of file wrapper estoppel. It was one of Petitioners' contentions in the courts below that the patent in suit is invalid because the subject matter failed patentably to distinguish from the prior art, and while we assume this court will not deal directly with that issue, brief reference to the prior art, as a referent, is essential to a consideration of the points presented. Otherwise, application of the doctrine of mechanical equivalents to extend the monopoly beyond the express terms of the claim, or disregard of file wrapper estoppel, may lead to a patent of such scope as to be invalid over the prior art. Indeed, the court below fell into that error. Notwithstanding the prior Fisher patent (R. 552) and the Bolo device (R. 469), and notwithstanding that the claim in suit was allowed only after the Examiner had required that, in order to distinguish over the prior art:

“... the applicant's particular type of contact structure, comprising an extension on the coil spring adapted to engage an annular contact embedded in the table, must appear in the claims” (R. 449-450),

the courts below proceeded to hold infringement by devices which (like the prior art) had neither the extension on the coil spring nor the annular contact embedded in the table. The patent could not, at once, be both valid and infringed.

POINT I.

The Doctrine of Mechanical Equivalents Is Incompatible With the Doctrine That the Patent Claim Measures the Invention; and Enlargement of a Patent Monopoly to Embrace Mechanical Equivalents, Not Within the Plain Terms of the Claim, Is a Relaxation of the Statutory Requirements.

- As we have shown above, the Circuit Court of Appeals,
- although recognizing that neither of Exhibits 6, 8, 9 or 10
 - was embraced by the terms of the claim in suit, held the same to be infringements of the patent because, it was supposed, that these devices were the mechanical equivalent of the device shown in the patent in suit. Thus, in connection with Exhibits 6 and 10, the Circuit Court of Appeals (R. 678) acknowledges that these devices do not have a conductor embedded in the table, but, rather, that a large hole is cut in the pin table and this hole is covered with a metal plate in which the stationary conductor is mounted; while anent Exhibits 8 and 9 the court recognizes that the stationary conductor (in the form of a collar) is not embedded in the table, but, rather, is mounted upon the top surface of the table on an insulating core, which is attached to the table by means of the spring-supporting standard (R. 678).

The fact that the patent claim in suit does not by its terms embrace structures such as Exhibits 6, 8, 9 and 10 raises the question of whether the scope of a patent is limited by the terms of its claims, or may be enlarged therebeyond by the so-called doctrine of mechanical equivalents.

The question of what is an infringement of a patent has been approached from two different angles by the courts. This Court has affirmatively held that the terms of the claims of a patent define the limits of the monopoly. Per-

mutit v. Graver, 284 U. S. 52, 60; Keystone Bridge Co. v. Phoenix Iron Co., 95 U. S. 274, 278, 24 L. Ed. 344; Yale Lock Co. v. Greenleaf, 117 U. S. 554, 559, 6 S. Ct. 846, 29 L. Ed. 952; White v. Dunbar, 119 U. S. 47, 52, 7 S. Ct. 72, 30 L. Ed. 303; McClain v. Ortmyer, 141 U. S. 419, 424, 12 S. Ct. 76, 35 L. Ed. 800; Minerals Separation v. Butte etc. Co., 250 U. S. 336, 350, 39 S. Ct. 496, 63 L. Ed. 1019.

In another line of cases, however, this Court has held that where an accused device is the mechanical equivalent of the device disclosed in a patent, infringement exists, notwithstanding the verbal limitations of the claim. Winans v. Denmead, 15 How. 330, 343, 14 L. Ed. 717; Blake v. Robertson, 94 U. S. 728, 24 L. Ed. 245; Clough v. Barker, 106 U. S. 166, 1 S. Ct. 188, 27 L. Ed. 134; Royer v. Schultz Belting Co., 135 U. S. 319, 10 S. Ct. 833, 34 L. Ed. 214; Hoyt v. Horne, 145 U. S. 302, 12 S. Ct. 922, 36 L. Ed. 713.

These two approaches to the question of infringement are patently inconsistent. The inconsistency of the so-called doctrine of mechanical equivalents with the principle that a patent disclosure is open to the public, save as the claim forbids, was emphatically pointed out, at the inception of the so-called doctrine of mechanical equivalents, by Mr. Justice Campbell in his dissenting opinion in Winans v. Denmead, 56 U. S. 330:

"The patentee, not exaggerating the theoretical superiority of the form of his car, overlooked those facts which reduced its practical value to the level of cars of a form widely variant from his own. The object of this suit is to repair that defect of observation. It is, that this court shall extend, by construction, the scope of operation of his patent, to embrace every form which in practice will yield a result substantially equal or approximate to his own." 1 c. 346.

"* * * The patentee is obliged by law, to describe his invention, in such full, clear and exact terms, that

from the description, the invention may be constructed and used. Its principle and modes of operation must be explained; and the inventor shall particularly 'specify and point' out what he claims as his invention. Fullness, clearness, exactness, preciseness and particularity, in the description of the invention, its principle, and of the matter claimed to be invented, will alone fulfill the demands of Congress or the wants of the country. Nothing, in the administration of this law, will be more mischievous, more productive of oppressive and costly litigation, of exorbitant and unjust pretensions and vexatious demands, more injurious to labor, than a relaxation of these wise and salutary requisitions of the act of Congress. In my judgment, the principles of legal interpretation, as well as the public interest, require that this language of this statute shall have its full significance and import."

Consequently, one considering any question of infringement must choose whether he is to follow the principle that the disclosure of a patent is open to the public, save as the claim forbids, or whether he is to follow the principle that nothing is open to the public which is a mechanical equivalent of the thing disclosed in the patent, claim limitations to the contrary notwithstanding. This raises the practical difficulty which repeatedly confronts the Courts, patentees, industry and counsel, that one cannot safely utilize disclosures of a patent, though unforbidden by a claim, where there is any room for argument upon the question of mechanical equivalents. In practice, a case seldom arises where there is no room for debate as to mechanical equivalents. A button and a zipper may both be used to close a garment, so some might argue that they are mechanical equivalents. Consequently, it frequently happens that the doctrine of mechanical equivalents is

*The inconsistency has also been noted by other Courts: *Claude Neon Lights v. E. Machlett & Son*, 36 F. (2d) 574, C. C. A. 2; *Otis Elevator Co. v. Atlantic Elevator Co.*, 47 F. (2d) 545, C. C. A. 2; *Oates v. Camp*, 83 F. (2d) 111, C. C. A. 4; *Directplate Corp. v. Donaldson Lithographing Co.*, 51 F. (2d) 199, C. C. A. 6.

applied by the Courts in such manner that the patent, in effect, covers the result, rather than the means for accomplishing the result, although this Court has repeatedly held that no patent can cover a result (*General Electric Co. v. Wabash Appliance Co.*, 304 U. S. 364, 371; *Holland Furniture Co. v. Perkins Glue Co.*, 277 U. S. 245, and cases cited 256-8; *O'Reilly v. Morse*, 56 U. S. 62). This, too, was presaged by Mr. Justice Campbell in *Winans v. Denmead*, *supra*, when, criticizing the majority opinion, he pointed out (l. c. 346):

"* * * It is, that this court shall extend, by construction, the scope of operation of his patent, to embrace every form which in practice will yield a result substantially equal or approximate to his own."

The Patent Statutes (R. S. 4888, 35 U. S. Code 33) require patentees to "particularly point out and distinctly claim the part, improvement or combination" which the patent is supposed to cover. The purpose of this is pointed out by this Court in *White v. Dunbar*, 119 U. S. 47, as follows (l. c. 52):

"* * * The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms."

As more recently stated by this Court, *Schriber-Schroth v. The Cleveland Trust Co.*, 305 U. S. 47 (l. c. 57):

"The object of the statute is to require the patentee to describe his invention so that others may construct and use it after the expiration of the patent and 'to inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.' *Permutit Co. v. Graver Corp.*, 284 U. S. 52, 60",

and in *General Electric v. Wabash Appliance Co.*, 304 U. S. 364, 1 c. 369:

“ * * * Congress requires of the applicant ‘a distinct and specific statement of what he claims to be new, and to be his invention.’ Patents, whether basic or for improvements, must comply accurately and precisely with the statutory requirements as to claims of invention or discovery. The limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public. The statute seeks to guard against unreasonable advantages to the patentee and disadvantages to others arising from **uncertainty** as to their rights. The inventor must ‘inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.’ The claims ‘measure the invention.’ ”

Despite this statutory requirement, the various courts, including the Courts below, have applied the so-called doctrine of mechanical equivalents to enlarge the scope of patents, including the patent in suit, beyond the plain terms of the claims. This defeats the purpose of the claim, and the claim becomes a vain, unnecessary, and misleading thing.

Abolition of the doctrine of mechanical equivalents would harm no one except overreaching patentees who seek to stretch their issued patents to dominate things not comprehended at the time of filing their applications, and not contemplated by the Patent Office when the claim was

*In such cases the courts, in practical effect, rewrite the claims of the patent, as Judge Learned Hand said:

“ * * * in misericordiam to relieve those who have failed to express their complete meaning ” (*Claude Neon Lights v. E. Machlett & Son*, supra, 1 c. 576).

allowed. Full opportunity is afforded inventors, in the Patent Office, to claim their inventions broadly or narrowly. Since a patentee has full opportunity to claim his invention broadly, he is entitled to no special consideration because of his failure to do so. The spirit of the patent laws demands that a patentee shall be bound by the claims as agreed upon by the Patent Office. Any relaxation of the statutory requirements such as by resort to the so-called doctrine of mechanical equivalents is "productive of oppressive and costly litigation, of exorbitant and unjust pretensions and vexatious demands" (Winans v. Denmead, *supra*, dissenting opinion of Mr. Justice Campbell, l. c. 347).

That the doctrine of mechanical equivalents may have a proper place as a limitation upon the apparent scope of a patent claim is by no means inconsistent with our contention that it has become a subterfuge whereby a patentee may enlarge his monopoly, and, hence, recapture a thing which, on the face of the patent, became open to the public. The doctrine of mechanical equivalents as a means for voiding express limitations in the claims of a patent should be abolished.

If, as we contend, nothing is an infringement unless it is embraced by the claim, neither of Petitioner's Exhibits 6, 8, 9, or 10 can infringe, because in none of them is there a conductor "embedded in the table" as prescribed by the claim here in suit.

POINT -II-

When, during the Pendency of an Application, the Applicant presents a Claim Calculated to Cover an Alternative Structure not disclosed in the Original Application but being then Commercialized by Another, the Patent Office Rules That the Alternative Structure is not Brought Out by the Specification or Drawings, the Ruling is acquiesced in, the Claim Amended to Conform it to the Specification and Drawings, and as thus Amended, Allowed—the Patentee is Estopped to Contend that the Amended and Allowed Claim Covers the Intervening Structure Sought to be Covered by the Rejected and Surrendered Claim (Qs. 2 and 3, p. 4, Petition).

As we have shown hereinbefore, the Nelson application, as filed, contained no claim which would read upon any of the Petitioners' devices; it disclosed but one form, and contained no hint at the alternative structures represented by any one of Petitioners' six found-infringing devices (Exhibits 5, 6, 7, 8, 9, 10). Not until after one of Petitioners had marketed the Exhibit 5 device did Nelson attempt to enlarge the monopoly sought. Prosecution of Nelson's Application reflects that the Patent Office was unwilling to allow claims of scope such as to cover Exhibits 6, 8, 9 and 10, and was unwilling to allow claims addressed to the specific structure of Exhibits 5 and 7 (suggested as an alternative in the informal Remarks of an amendment).

Estoppel by File Wrapper History.

When first presented to the Patent Office (after Petitioners' intervening device was on the market) the claim here in suit read:

"In a ball rolling game having a substantially horizontal table over which balls are rollable, the com-

bination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantsly from the upper portion of the standard with the coils of the spring spaced from the standard and the lower end of the coil spring terminating at a distance above the top surface of the table to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and other conductor means carried by the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit" (emphasis ours).

Had the claim been allowed in that condition, it would have read upon all of Petitioners' devices. But it was not allowed. It was rejected. Subsequently it was amended to change the definition of the relation of the conductor to the table from:

"carried by the table"

to:

"embedded in the table" (R. 450).

As the Circuit Court of Appeals said (R. 678):

"Prior to this substitution of language almost any form of conductor which was mounted on the table in any place or manner, permanently or movable, would have answered the language of the claim,"

but the Court of Appeals failed to recognize that when Nelson thus definitely defined and claimed the conductor as being "embedded in the table," he forever disclaimed any and all devices in which the conductor was merely "carried by the table."

Under such circumstances, to hold infringement by devices like Exhibits 6, 8, 9 and 10,* which indisputably do not have the conductor embedded in the table, does violence to two settled rules of estoppel by file wrapper history:

First, the patentee may not, by resort to the doctrine of equivalents, give to an allowed claim a scope which it might have had without amendments, required as a condition precedent to allowance. As held by this Court in *Weber Electric Co. v. Freeman Electric Co.*, 256 U. S. 668, l. c. 677-8:

“* * * Having thus narrowed his claim against rotary movement in order to obtain a patent, the patentee may not by construction, or by resort to the doctrine of equivalents, give to the claim the larger scope which it might have had without amendments, which amount to a disclaimer of rotation as an operative feature of his device. *Shepard v. Carrigan*, 116 U. S. 593, 598; *Hubbell v. United States*, 179 U. S. 77, 80.”

See, also, *Smith v. Magic City Club*, 282 U. S. 784, 790; *I. T. S. Rubber Co. v. Essex Rubber Co.*, 272 U. S. 444; *Schriber-Schroth v. Cleveland Trust Co. et al.*, 311 U. S. 211.

Second, that an amendment to a claim, after rejection thereof, is to be strictly construed against the inventor and in favor of the public and looked upon as in the nature of a disclaimer. In *Smith v. Magic City Kennel Club*, 282 U. S. 784, l. c. 790, this Court held:

*And we think also Exhibits 5 and 7, but we pass this contention in their regard, as such would involve a factual controversy as to whether a nail driven into a table is a “conductor embedded in the table” in the sense of the Nelson patent. As to these two Exhibits, we submit that further estoppel results from the fact that Nelson attempted to and the Patent Office prohibited him from presenting a claim which would read upon these two Exhibits, upon the ground (R. 452) that

“* * * no such structure has been brought out by the drawing or specification.”

“ * * * The applicant having limited his claim by amendment and accepted a patent, brings himself within the rules that if the claim to a combination be restricted to specified elements, all must be regarded as material, and that limitations imposed by the inventor, especially such as were introduced into an application after it had been persistently rejected, must be strictly construed against the inventor and looked upon as disclaimers. *Sargent v. Hall Safe & Lock Co.*, 114 U. S. 63, 86; *Shepard v. Carrigan*, *supra*, 598; *Hubbell v. United States*, *supra*, 85.”

See, also, *Snow v. Lake Shore & M. S. Ry. Co.*, 212 U. S. 617, 630, cited with approval *Schriber-Schroth v. Cleveland Trust*, 305 U. S. 47, l. c. 57; *Schriber-Schroth v. Cleveland Trust et al.*, 311 U. S. 211; *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405; *Keystone Bridge Company v. Phoenix Iron Company*, 95 U. S. 274.

The File Wrapper History Shows the Attempt to Dominate the Intervening Device.

As noted above, the claim in suit was presented to the Patent Office after Petitioners' intervening device, Exhibit 5, was on the market. As presented, it called for a structure (unlike that disclosed but like the intervening device) in which the coil spring had its lower end “terminating at a distance above the top surface of the table.”

In the informal remarks accompanying the amendment whereby the claim in suit was changed from defining the conductor as “carried by the table” to “embedded in the table,” Nelson's solicitor urged the allowance of the claim addressed to the alternative structure, exemplified by petitioner's intervening device, because (R. 450):

“Each of the allowed claims can, it seems, be very simply avoided by taking the leg 19, separating it from the spring 18 and embedding it as a pin in the table, so that the spring when flexed would contact the pin.”

Although the Patent Office had no way of knowing that Petitioners' intervening device had inspired this afterthought, the Examiner rejected the claim, saying (Rec. 452):

"Claim 7 and claim 8 which was previously thought to be allowable, are both rejected as describing an inoperative structure in view of the applicant's disclosure.

"These claims call for a pendantly mounted coil spring terminating at a distance above the top surface of the table and having a portion thereof engaging a conductor embedded in the table. With the type of conductor disclosed, such a structure would be inoperative as the coil spring could not both terminate at a distance above the table and extend into a ferrule embedded therein. It is true as the applicant suggested that if the portion 19 were removed from the spring and embedded in the table an operative device would result but no such structure has been brought out by the drawing or specification."

Thereupon the claim was further amended to cancel the previously recited feature that the spring had its lower end "terminating at a distance above the top surface of the table."

Nelson therefore attempted to specifically claim a thing which was not disclosed by his application. Upon meeting with rejection, he abandoned the attempt. The ruling of the Courts below that the thing which Nelson thus sought to specifically claim is an infringement, is clearly in conflict with the decision of this Court in *Schriber-Schroth v. The Cleveland Trust Company*, 305 U. S. 47, 1. c. 57:

"• • • It follows that the patent monopoly does not extend beyond the invention described and explained as the statute requires, *Permutit Co. v. Graver Corporation*, *supra*, at 57; that it cannot be enlarged

by claims in the patent not supported by the description, *Snow v. Lake Shore & M. S. Ry. Co.*, 121 U. S. 617; cf. *Smith v. Snow*, 294 U. S. 1; and that the application for a patent cannot be broadened by amendment so as to embrace an invention not described in the application as filed, **at least when adverse rights of the public have intervened.** *Railway Co. v. Sayles*, 97 U. S. 554, 563, 564; *Powers-Kennedy Corp. v. Concrete Co.*, 282 U. S. 175, 185-186; cf. *Webster Electric Co. v. Splitdorf Electrical Co.*, 264 U. S. 463; *Permutit Co. v. Graver Corporation*, *supra*; *Crown Cork & Seal Co. v. Gutmann Co.*, 304 U. S. 159."

Assuming *arguendo* that the nail in the table of Exhibits 5 and 7 is a "conductor embedded in the table" in the sense of the Nelson patent, the Court of Appeals erred in enforcing the Nelson patent against such devices.

The Court of Appeals apparently treated the informal remark, anent structures like Petitioners' intervening device, as if it were a suggestion contained in Nelson's original application, because the Court of Appeals took note of this in making its determination of infringement. It is settled, of course, that if such a suggestion had been, by amendment, written into the descriptive part of the Specification, the patent would have been invalid (*Mackay Radio & Telegraph Co. v. Radio Corporation of America*, 306 U. S. 86, l. c. 100 and 101; *Powers-Kennedy Contracting Corp. v. Concrete Mixing & Conveying Co.*, 282 U. S. 175; *Automatic Devices Corporation v. Sinko Tool & Mfg. Co.*, 112 F. (2d) 332, and compare *Sontag Chain Stores Co. v. National Nut Co. of California*, 310 U. S. 281).

Instead of regarding the attempt of Nelson to dominate the intervening rights of Petitioners "with jealousy and disfavor" (*Railway Co. v. Sayles*, 97 U. S. 554), and notwithstanding that the Court below has held that a change of a patent specification to embrace an intervening device

invalidates the patent, the Court of Appeals regarded this informal remark as a virtue having all of the good attributes which it might have had if it had been a part of the original application, without any of the evils it would have had if made as a formal amendment.

Under the circumstances, the attempt to dominate the intervening device should "destroy the patent" as in Powers-Kennedy Corporation v. Concrete Mixing & Conveying Co., supra.

CONCLUSION.

As we have pointed out, infringement cannot be held without stretching the claim beyond its plain terms by application of the doctrine of mechanical equivalents. While we think the file wrapper estoppel precludes such enlargement of the claim, it is noteworthy that even if the file wrapper estoppel were absent, enlargement of the claim to embrace all mechanical equivalents would invalidate it in view of the prior Bolo device. The Court below erroneously considered the Nelson patent narrow for one purpose (validity) and broad for another (infringement).*

Judgment of the Seventh Circuit Court of Appeals, we submit, should be reversed and the cause remanded to the District Court for the Northern District of Illinois, Eastern Division, with instructions to dismiss the complaint.

Respectfully submitted,

CLARENCE E. THREEEDY,

JOHN H. SUTHERLAND,

Attorneys for Petitioners.

*In Mackay Company v. Radio Corporation, 306 U. S. 86, this Court pointed out that a patentee,

"... avoiding prior art by defining his (improvement) with mathematical precision, cannot discard that precision to establish infringement" (l. c. 102).

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JAN 14 1942

CHARLES E. THREEDY

IN THE
SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1941.

EXHIBIT SUPPLY COMPANY,	Petitioner,	} No. 154.
vs.		
ACE PATENTS CORPORATION,	Respondent.	}
GENCO, INC.,	Petitioner,	
vs.		} No. 155.
ACE PATENTS CORPORATION,	Respondent.	
CHICAGO COIN MACHINE COMPANY,	Petitioner,	} No. 156.
vs.		
ACE PATENTS CORPORATION,	Respondent.	}

PETITIONERS' REPLY BRIEF.

CLARENCE E. THREEDY,
JOHN H. SUTHERLAND,
Counsel for Petitioners.

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PETITIONERS' REPLY BRIEF.

To the Honorable the Chief Justice and the Associate Justices of the Supreme Court of the United States:

The colored plate at the end of Respondent's Brief does not illustrate any of the accused devices. Hence, it appears irrelevant.

Much of Respondent's discussion is quite afield from the definitely crystallized questions of law presented by the Petition and our main Brief on the merits. We deem it unnecessary to reply to Respondent's Brief, in gross, but a few points require clarification in reply.

The Record Amply Shows the Intervening Right.

Respondent's witness Maloney, an officer of the patentee's employer and brother of the original assignee, produced (R. 89, 91) a series of advertisements, including Exhibits 23 and 24, relating to the "Home Run" game, which "appeared about that time" (February, 1937).*

The advertisements of the "Home Run" game (Ex. 23, R. 357; and Ex. 24, R. 359) as reproduced in the record are not so clear but that one, ignorant of the facts, might misunderstand the vertical member to be a part of the spring, rather than a separate nail-like pin; but Respondent is not justified in so representing to this Court.

Any doubt about the structure shown in these advertisements of the "Home Run" game (Exs. 23 and 24) is dispelled in the light of the testimony (R. 159-160):

"XQ. 26. Mr. Koci, when you referred to the introduction of the bumper type game in the fall of 1936, you were speaking of a game that employed a bumper switch such as is mounted upon Plaintiff's Exhibit No. 11? (Mr. Ooms hands object to the witness.)

A. Not in the fall. At the close of the year.

XQ. 27. At the close of the year?

A. That is the bumper switch.

XQ. 28. Who first produced that switch, do you know?

A. I believe it was the Bally Manufacturing Company.

XQ. 29. And that was the first time you saw a game of that type on the market?

A. With that particular switch.

XQ. 30. Now, subsequently the Chicago Coin Machine Company made a device with a switch of that kind, did it not?

A. Not of that type.

XQ. 31. What was the difference?

*Both Maloney and the patentee, Nelson, testified that they kept informed about what was going on in the industry (R. 67, 98).

A. The difference was that it did not have the member 19 extending downward and it was merely an angular annular spring and we inserted four nails into the board. This merely turned on a light or turned off a light; in other words, once this bumper spring was touched by a ball, it became dead.

XQ. 39. What about this switch, Plaintiff's Exhibit No. 5?

A. That is the one.

XQ. 40. You made that?

A. We made that.

XQ. 41. And when did you begin making those?

A. I believe the first game we started using that on was a game called 'Home Run,' and that was in the early part of 1937."

The "Home Run" game, it will be recalled, was the subject of the advertisements, Exhibits 23 and 24, published in February and March, 1937 (R. 357-9).

The claim in suit was injected into the Nelson application June 10, 1937 (R. 443-446).

The Nelson Application as Originally Filed Did Not Cover the Intervening Device.

When Respondent asserts (Brief p. 6) that Claim 2 of the original application covered the intervening device, it evidently overlooks the fact that that claim, like original Claim 1, required a

"spring including an **extension**"* (R. 437).

The only such "extension" shown, described or suggested by Nelson's application, as filed, was the depending leg 19. Words of a claim are always read in the light of the specification (Carnegie Steel Co. v. Cambria Iron Co., 185 U. S. 403, 432; American Fruit Growers, Inc., v.

*Emphasis supplied throughout except when contrary is indicated.

Brogdex Co., 283 U. S. 1, 6; Schriber-Schroth v. Cleveland Trust Co., 305 U. S. 47, 57).**

**If, as Respondent Contends, Infringement Is Determined
by Mechanical Equivalents, the Claim
Serves No Good Purpose.**

It is idle for Respondent to say (Brief p. 8) that the doctrine of mechanical equivalents has been applied "without difficulty" since Winans v. Denmead, 56 U. S. 330. On the contrary, the difficulty forecast by the dissenting opinion in that case has repeatedly manifested itself. (See cases cited pages 13-14 of the Petition herein.) Indeed, in 1869, the Commissioner of Patents in his Annual Report to the Congress said (p. 8):

"The great source of litigation is the conflict upon the issue of infringement, or the effort on the part of the inventor to carry the patent beyond the limits assigned to it by the Office at the time of its issue."

The same Congress to which that report was made subsequently passed the Patent Act of 1870, which was the first statute requiring a patentee to "**distinctly claim** the part, improvement or combination which he claims as his invention or discovery."† (Sec. 26, 16 Statutes at Large 198). This is carried verbatim in R. S. 4888 (35 U. S. Code 33), now in force.

The Commissioner's criticism, above quoted, cannot be overlooked as an element influencing the statutory requirement of a formal claim.

**The monopoly "cannot be enlarged by claims in the patent not supported by the description. Snow v. Lake Shore & M. S. Ry. Co., 121 U. S. 617."

In Snow v. Lake Shore & M. S. Ry. Co. it was held that a patentee disclosing but one embodiment and suggesting no alternatives is restricted to that form.

†The previous statute (5 Statutes at Large 117, Act of 1836) simply required the patentee to "particularly specify and point out the part, improvement or combination which he claims as his own invention or discovery."

While Respondent cites nineteen decisions of this Court (Brief pp. 10-11) and asserts that they represent reaffirmation of the doctrine of mechanical equivalents, it is significant that in but three of those cases, to-wit: Winans v. Denmead, 56 U. S. 330; Ives et al. v. Hamilton, 92 U. S. 426, and Hoyt v. Horne, 145 U. S. 302, did this Court hold a defendant liable for infringement where the accused device was not reached by the terms of the claim. And of those three cases, only Hoyt v. Horne involved a patent applied for after the Statute had been amended to require a formal claim.

On the contrary, the substance* of the dissenting opinion

*"The patentee, not exaggerating the theoretical superiority of the form of his car, overlooked those facts which reduced its practical value to the level of cars of a form widely variant from his own. The object of this suit is to repair that defect of observation. It is, that this court shall extend, by construction, the scope and operation of his patent, to embrace every form which in practice will yield a result substantially equal or approximate to his own (56 U. S. 346). * * *

"The plaintiff confines his claim to the use of the conical form, and excludes from his specification any allusion to any other. He must have done so advisedly. He might have been unwilling to expose the validity of his patent, by the assertion of a right to any other. Can he abandon the ground of his patent, and ask now, for the exclusive use of all cars which, by experiment, shall be found to yield the advantages which he anticipated for conical cars only?

"The claim of today is, that an octagonal car is an infringement of this patent. Will this be the limit to that claim? Who can tell the bounds within which the mechanical industry of the country may freely exert itself. What restraints does this patent impose in this branch of mechanic art?

"To escape the incessant and intense competition which exists in every department of industry, it is not strange that persons should seek the cover of the patent act, for any happy effort of contrivance or construction; nor that patents should be very frequently employed to obstruct invention, and to deter from legitimate operations of skill and ingenuity. This danger was foreseen, and provided for, in the patent act. The patentee is obliged, by law, to describe his invention, in such full, clear, and exact terms, that from the description, the invention may be constructed and used. Its principle and modes of operation must be explained; and the invention shall particularly 'specify and point' out what he claims as his invention. Fullness, clearness, exactness, preciseness, and particularity, in the description of the invention, its principle, and of the matter claimed to be invented, will alone fulfill the demands of Congress or the wants of the country. Nothing, in the administration of this law, will be more mischievous, more productive of oppressive and costly litigation, of exorbitant and unjust pretensions and vexatious demands, more injurious to labor, than a relaxation of these wise and salutary requisitions of the act of Congress. In my judgment, the principles of legal interpretation, as well as the public interest, require, that this language of this statute shall have its full significance and import" (56 U. S. 347).

in *Winans v. Denmead* had been adopted by this Court in many cases holding that the monopoly of a patent is limited by the claims thereof. *Merrill v. Yeomans*, 94 U. S. 568; *Keystoné Bridge Co. v. Phoenix Iron Co.*, 95 U. S. 274; *Burns v. Meyer*, 100 U. S. 671; *Parks v. Booth*, 102 U. S. 96; *Railroad Co. v. Mellon*, 104 U. S. 112; *Yale Lock Co. v. Greenleaf*, 117 U. S. 554; *White v. Dunbar*, 119 U. S. 47; *Day v. Fair Haven & W. Ry. Co.*, 132 U. S. 98; *Haines v. McLaughlin*, 135 U. S. 584; *Grant v. Walter*, 148 U. S. 547; *Deering v. Winona Harvester Wrks.*, 155 U. S. 286; *Singer Mfg. Co. v. Cramer*, 192 U. S. 265; *Minerals Separation v. Butte & Superior Mining Co.*, 250 U. S. 336; *I. T. S. Rubber Co. v. Essex Rubber Co.*, 272 U. S. 429; *Altoona Theatres v. Tri-Ergon Corp.*, 294 U. S. 477; *Schriber-Schroth v. Cleveland Trust Co.*, 305 U. S. 47; *Cimiotti Unhairing Co. v. American Fur Ref. Co.*, 198 U. S. 399.

Indeed, the dissenting opinion in *Winans v. Denmead* is not without recent recognition by this Court in *Cuno Engineering Corp. v. Automatic Devices Corp.*, 62 Sup. Ct. 37, decided November 10, 1941.

If, as Respondent contends, it is mechanical equivalence, and not the terms of the claim, which determines the limits of a patent monopoly, the purpose thus repeatedly ascribed to the claim, by this Court, is destroyed, and the claim serves no purpose but to mislead.

The Doctrine of Mechanical Equivalents as a Device for Enlarging a Patent Monopoly Beyond the Terms of the Claims Is Not in the Public Interest, and Should Be Abolished.

We insist that the doctrine of mechanical equivalents, as applied by the lower courts in this case, following *Winans v. Denmead*, 56 U. S. 330, serves no purpose other than to enable patentees "to carry the patent beyond the

limits assigned to it by the Office at the time of its issue," as stated by the Commissioner of Patents in 1869, *supra*.

We dispute Respondent's suggestion (Br. p. 12) that abolition of the doctrine of mechanical equivalents would interfere with the practical administration of the patent laws. Every patent applicant has full opportunity, in the Patent Office, to make his claims as broad as the prior art will permit, consistent with his disclosure. Any inventor can draw his claims broad enough to cover all the alternatives he contemplates at the time of filing, but failing to do so, no doctrine of mechanical equivalents or any other doctrine should entitle him to retroactively broaden his monopoly so as to embrace unforeseen developments of others.

Contrary to Respondent's contention (Br. p. 11) that R. S. 4888 requires an inventor only to "set forth the **best mode** of applying the principle of his invention," the statute requires, in addition, an explanation of the principle thereof. As a practical matter, when an inventor explains his principle, he can draw his claims in terms of "means" and thereby acquire protection upon the full range of alternatives or mechanical equivalents by which that principle can be reduced to practical purpose. But when, as here, the "best mode" is itself the principle, the patent must be limited to what is disclosed, as this Court held in *Snow v. L. S. & M. S. R. R. Co.*, 121 U. S. 617 (l. c. 630):

"It is not admissible to adopt the argument made on behalf of the appellants, that this language is to be taken as a mere recommendation by the patentee of the manner in which he prefers to arrange these parts of his machine. There is nothing in the context to indicate that the patentee contemplated any alternative for the arrangement of the piston and piston-rod. * * * the conclusion seems unavoidable that the patentee intended the detachment of the piston from its rod as an essential part of the combination to be covered by the first claim."

The One Limitation Which Respondent Admits Having Made Pursuant to the Requirement of the Patent Office Clearly Precludes Infringement by Exhibits 6, 8, 9 and 10.

That Nelson did not accede to the Examiner's requirements in all respects does not mitigate the file wrapper estoppel created by his accession with respect to the manner of mounting the complementary conductor.

Respondent admits (Br. p. 17) that the claim in suit was limited "with respect to the complementary conductor (in Nelson the brass ferrule embedded in the board)." Of course, there can be no denial that the claim in suit was limited, by **amendment**, to the complementary conductor **embedded** in the board. When the amendment was made, Nelson's solicitor remarked (R. 450):

"Claim 7 has been **significantly** amended near the end to define the complementary conductor contact as being **embedded** in the table."

Previously, the claim had merely required that the complementary conductor be "carried by" the table.*

That amendment clearly **manifested an intention to disclaim** all forms in which the complementary conductor was not actually embedded in the table. *Shepard v. Carrigan*, 116 U. S. 593, 598; *Smith v. Magic City Kennel Club*, 282 U. S. 784; *Sargent v. Hall Safe & Lock Co.*, 114 U. S. 63; *Hubbell v. United States*, 179 U. S. 77; *Schriber-Schroth v. Cleveland Trust Co.*, 311 U. S. 211.

Even the majority opinion in *Winans v. Denmead*, *supra*, would preclude infringement by a thing whose complementary conductor was not actually embedded in the table. In the passage quoted by Respondent (Br. p. 9) the court makes such an exception:

*At page 18 of Respondent's brief it is admitted "the words 'carried by' are far more comprehensive than the substituted language 'embedded in.'"

"the patentee * * * is, in contemplation of law, deemed to claim every form in which his invention may be copied, **unless he manifests an intention to disclaim** some of those forms."

By deliberate amendment, acquiescing in the requirement of the Examiner, the embedding of the conductor in the table became, if indeed it was not already, a *sine qua non* of Nelson's patent. Nothing can infringe which does not include such a complementary conductor actually embedded in the table. Respondent's brief makes no assertion that the complementary conductors of Exhibits 6; 8, 9 and 10 are actually embedded in the table. They cannot infringe.

Summary.

The patent in suit was limited by amendment, pursuant to requirement of the Patent Office, to a structure in which the complementary conductor was actually embedded in the table. Such an amendment constituted a disclaimer of all forms in which the complementary conductor was mounted otherwise.

In Exhibit 6, the complementary conductor is mounted in a plate, which rests on the **top surface** of the table. The conductor extends through a large hole in the table. There is no embedded relation.

In Exhibit 10, the complementary conductor is mounted in an insulating plug which, in turn, is mounted in a plate which rests on the **top surface** of the table. The conductor, as well as the plug, extends through a large hole in the table. The embedded relation is absent.

In Exhibit 8, the complementary conductor is a sleeve surrounding the standard and connected with a plate which rests on the **top surface** of the table. A wire lead-

ing to the plate extends through a large hole in the table. The embedded relation is again lacking.

In Exhibit 9, the complementary conductor is a sleeve surrounding an insulating cup held well above the **top surface** of the table. A wire leading to the sleeve passes through a large hole in the table. None of these parts even touch the table. They cannot be embedded therein.

In Exhibit 5 and Exhibit 7 the complementary conductor is a nail or pin driven into the table. Construed by the dictionary, this may be "embedded," but circumstances exist here which require a more restricted construction of "embedded." The circumstances are:

(a) That after Exhibit 5 appeared on the market, the Nelson application was amended "almost in the very words" of Exhibit 5. If this does not "destroy the patent" (Powers Kennedy Co. v. Concrete Co., 282 U. S. 175, 186), or constitute such unclean hands as to bar relief (Keystone Driller Co. v. General Excavator Co., 290 U. S. 240; Morton Salt Co. v. G. S. Suppiger Co., decided January 5, 1942), it at least compels a restriction of the claim by the specification (Railway Co. v. Sayles, 97 U. S. 554, 563, 564; Schriber-Schroth v. Cleveland Trust Co., 305 U. S. 47, 57).

(b) That Nelson disclosed but one form in his application, as filed, and suggested no alternative for the leg extension 19 or the annular ferrule embedded in the table. In such circumstances, the patent must be restricted to the form shown (Snow v. Lake Shore and M. S. Ry. Co., 121 U. S. 617, cited with approval in Schriber-Schroth v. Cleveland Trust Co., 305 U. S. 47, 57).

While we submit that the so-called doctrine of mechanical equivalents, as applied in Winans v. Denmead, 56 U. S. 330; Ives v. Hamilton, 92 U. S. 426, and Hoyt v. Horne, 145 U. S. 302, to enlarge the monopoly a patent beyond

the terms of its claim should be abolished; it is clear that such doctrine should not be applied to render nugatory a file wrapper estoppel or an intervening right as established in this case. Even if such doctrine of mechanical equivalents is not abolished, the existence of the file wrapper estoppel, and the existence of the intervening right, would seem to preclude infringement by any one of the accused devices.

It is, therefore, respectfully submitted that the judgment of the court below should be reversed and the cases remanded to the District Court, with directions to dismiss the Complaints.

Respectfully submitted,

CLARENCE E. THREEDY,
JOHN H. SUTHERLAND,

Counsel for Petitioners.

St. Louis, Mo.,
January 10, 1942.

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CHARLES ELMORE GROPLEY
CLERK

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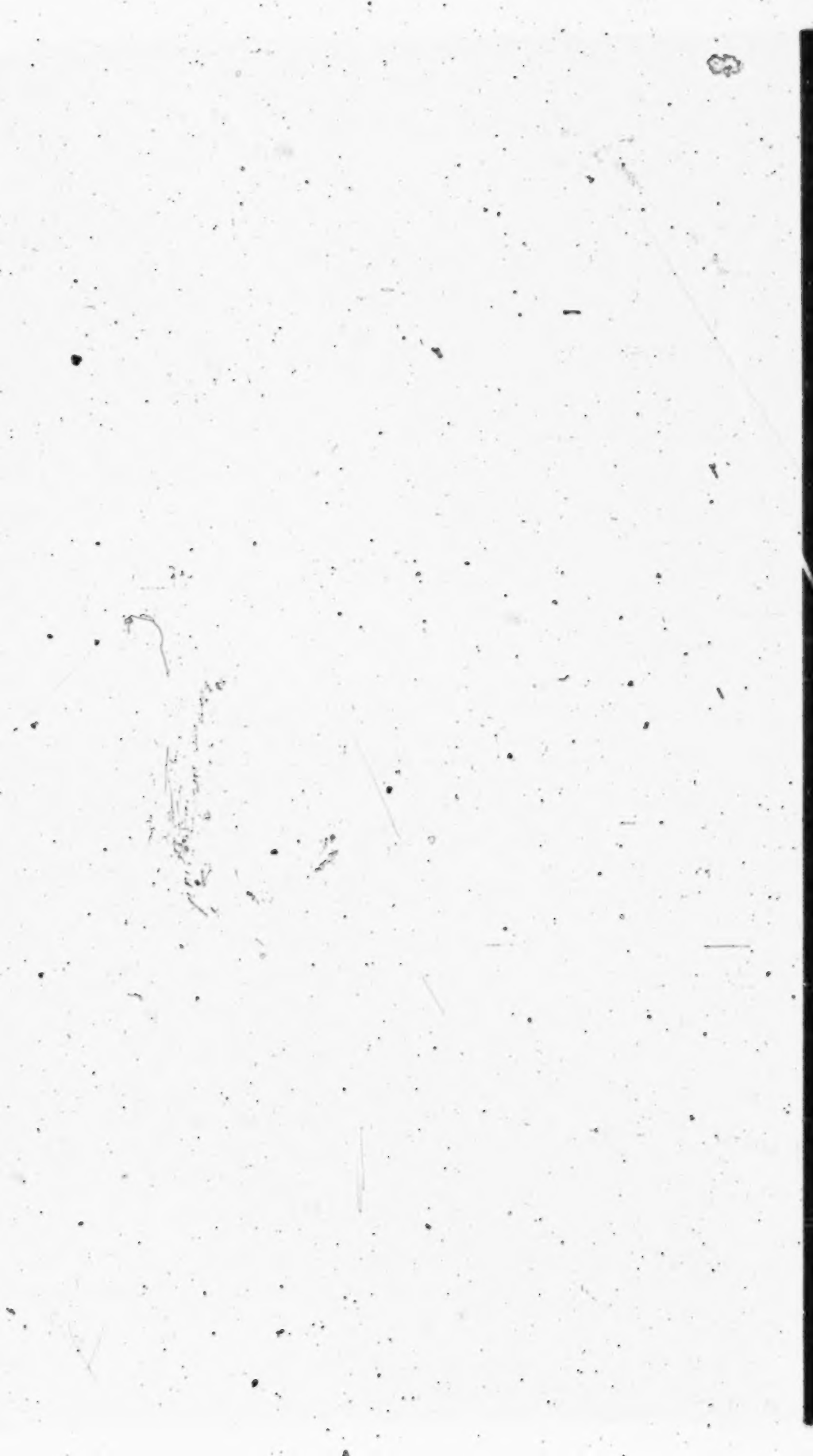
**BRIEF IN OPPOSITION TO PETITION FOR WRITS OF
CERTIORARI.**

✓ **CASPER W. OOMS,**

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JOHN A. RUSSELL,

Of Counsel.



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Respondent.

BRIEF IN OPPOSITION TO PETITION FOR WRITS
OF CERTIORARI.

Foreword.

The Petition for Writs of Certiorari in these causes should be denied because:

1. This is an ordinary patent case. The issues decided and sought to be reviewed here are wholly factual.

2. None of the character of reasons indicated by Rule 38 (5) are present in the instant causes:

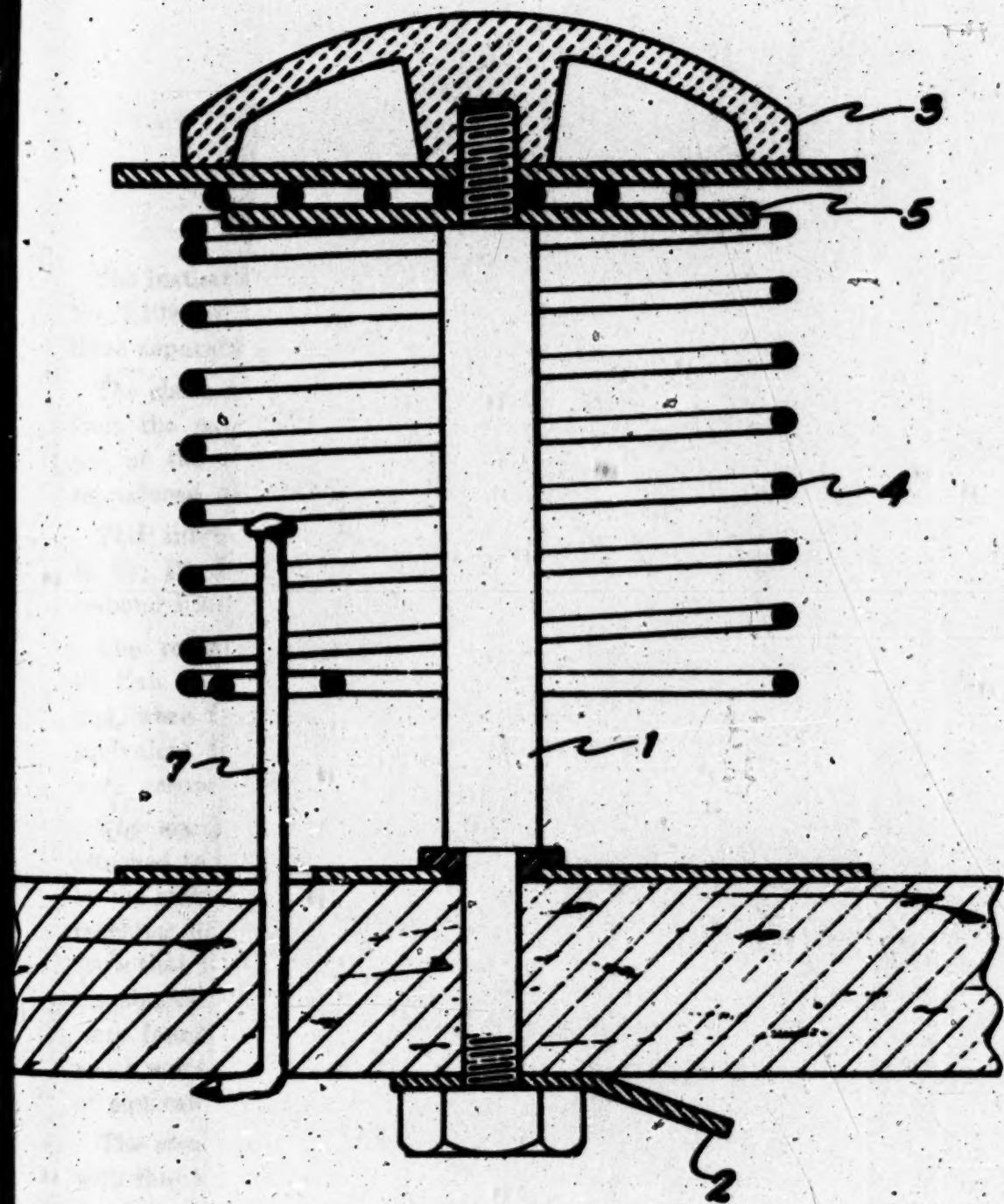
(a) The decision is not in conflict with the decision of any other Circuit Court of Appeals as the patent has never been involved in other litigation.

(b) The Circuit Court of Appeals* has adhered to and applied many decisions of this court rendered throughout a period of more than eighty years on the question of equivalency.

3. The present controversy is one falling squarely within the rule laid down in *Keller et al. v. Adams-Campbell Co., et al.*, 264 U. S. 314, 349, 68 L. Ed. 705, 708, wherein this Court said:

"Such an ordinary patent case, with the usual issues of invention, breadth of claims, and non-infringement, this court will not bring here by certiorari unless it be necessary to reconcile decisions of circuit courts of appeal on the same patent."

* Reported in 119 F. (2d) 349.



Plaintiff's Exhibit 5

Claim 4

In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of

- (1) a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table
- (2) a lead for an electric circuit and
- (3) its upper end extending a substantial distance above the top surface of the table,
- (4) a coil spring surrounding the standard,
- (5) means carrying said spring pendants from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table,
- (6) said spring being in the aforementioned circuit and constituting a conductor, and
- (7) conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

**The Claim In Suit Reads Directly
On Plaintiff's Exhibit 5**

Claim 4

In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of

- (1) a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table
- (2) a lead for an electric circuit and
- (3) its upper end extending a substantial distance above the top surface of the table,
- (4) a coil spring surrounding the standard,
- (5) means carrying said spring pendantsly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table,
- (6) said spring being in the aforementioned circuit and constituting a conductor, and
- (7) conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

**The Claim In Suit Reads Directly
On Plaintiff's Exhibit 5**

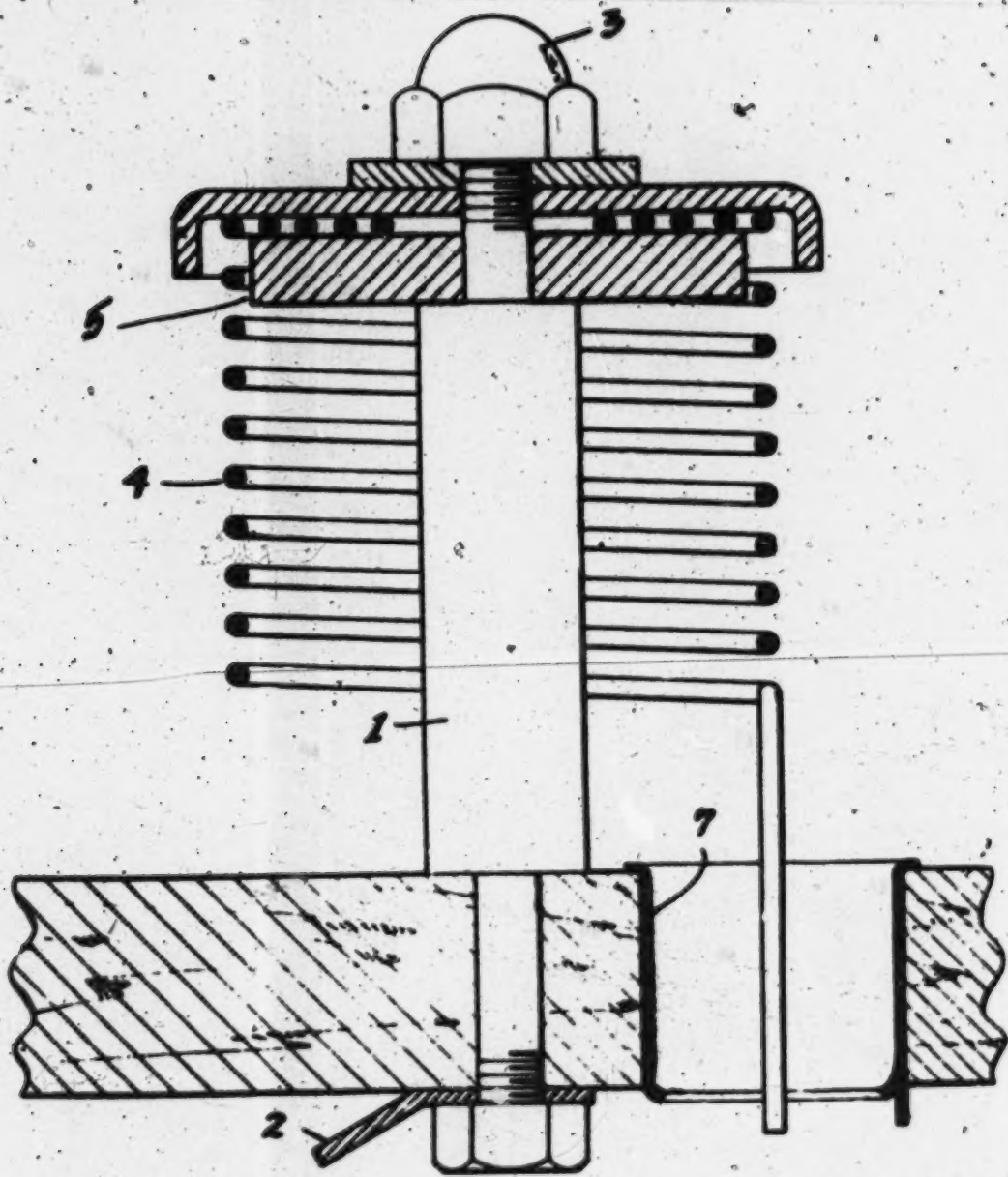
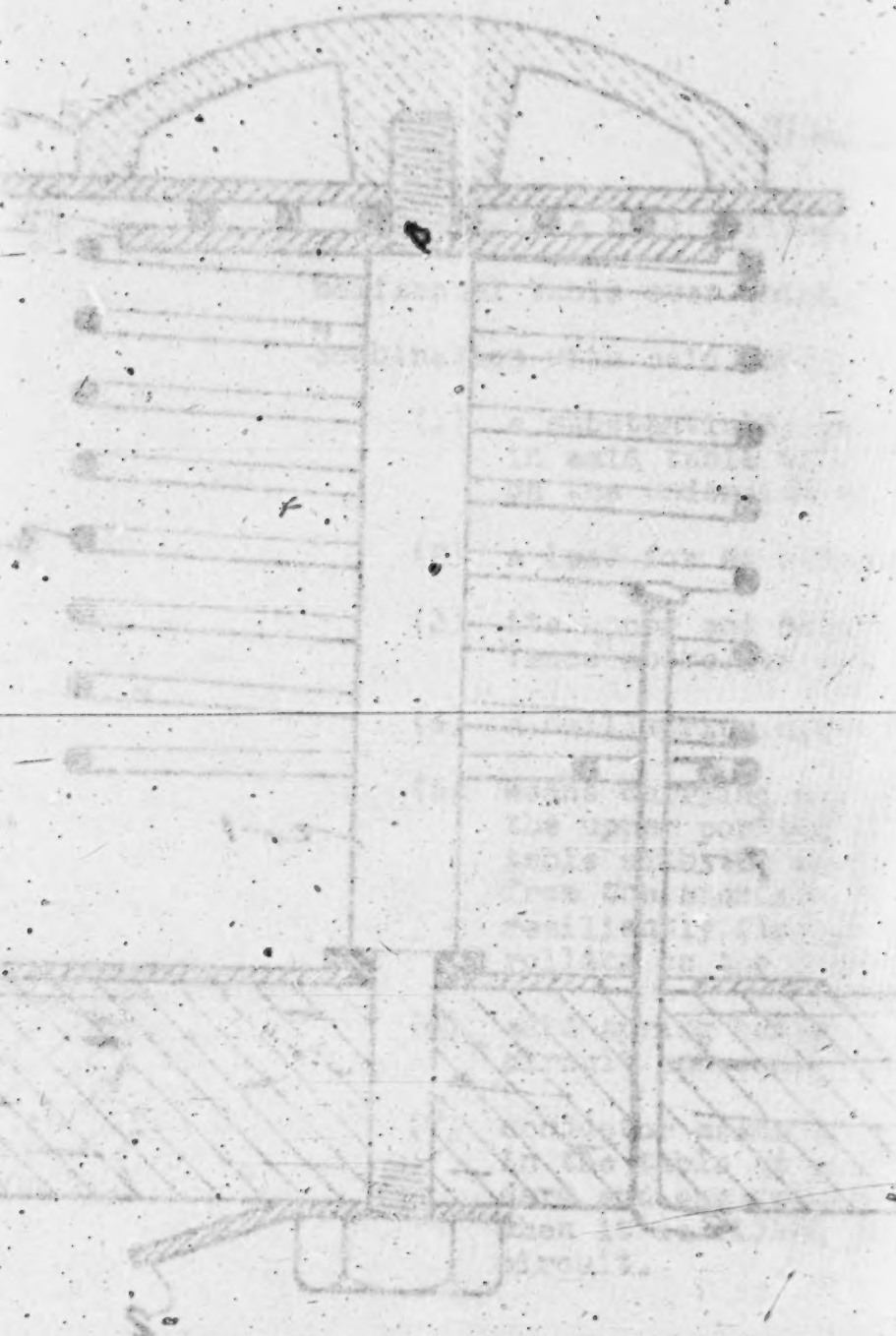


Fig. 2 of the Nelson Patent



Plaintiff's Exhibit 3

ARGUMENT.

This Is an Ordinary Patent Case.

The instant suits involve a single claim of Nelson patent No. 2,109,678 (R. 548). Six infringing devices made by three separate defendants were involved.

The claim of the patent in suit together with one figure from the patent drawings and a corresponding view of one of the infringing devices (Pl. Exh. 5, R. 51) are reproduced on the accompanying chart.

This infringing device and three others (Pl. Exh. 6, R. 53; Pl. Exh. 7, R. 15; and Pl. Exh. 10, R. 35) also respond literally to the claim in suit.

The remaining two devices (Pl. Exh. 8, R. 17, and Pl. Exh. 9, R. 21), one of which is illustrated in the petition, were found to involve the substitution of a simple equivalent for the last element of the patent claim and were accordingly found to respond thereto.

The six infringing devices are illustrated on a chart attached to the back cover of this brief, each accompanied by the statement made by the Circuit Court of Appeals in reaching its decision of infringement. These statements show that the question involved was merely one of reading the single simple claim upon these devices, four of which were found to respond literally to the claim, and two of which were found to respond by application of the doctrine of equivalents to one of the seven elements.

The structural and functional identity of the six devices with that invented by Nelson and illustrated in the reproduction of the drawing of the patent on the accompanying chart is manifest.

The Patent in Suit Is Not One Wherein the Critical Element of the Inventive Combination Was Inserted in the Specification or Claim After Filing.

Petitioners place great reliance upon the recent opinions of this court in *Schriber-Schroth v. Cleveland Trust Company*, 305 U. S. 47, and 311 U. S. 211, which involved either the assertion of claims which incorporated a critical element relied upon to sustain invention and inserted into the patent after its filing, or the attempt to read into a patent claim a critical distinction abandoned by the cancellation of earlier claims. The present case bears no resemblance to those cases.

Each of the seven elements of the patent claim was shown in the drawings and fully described in the specification of the patent application when filed. No change was made in the drawing or specification at any time thereafter.

Both the Circuit Court of Appeals (R. 670-679) and the District Court (R. 485-488) fully considered and rendered decisions upon each of the contentions which the petitioners now make, except the single contention that the doctrine of mechanical equivalents should be abolished.

The petition, although attractively setting forth this major controversy as to the desirability of the doctrine of mechanical equivalents, really seeks a rehearing in this court on the factual issues upon which this case was determined, as the doctrine was recognized and applied by the Circuit Court of Appeals as it has been by this Court for more than eighty years.

The Decisions of the Courts Below.

Petitioners represent that the District Court "recognized the patent to be of no 'great significance' (R. 487) in the art" (Petition, p. 3). The place of this patent in the art is of significance only to determine the scope of the equivalents to be accorded the claim in suit and petitioners therefore seek to derogate the patent by misquoting the District Court, which in fact said (R. 487):

"I do not think that this patent in suit is of great significance, but *I do think it was a step in advance in the art of making these pin games that may be said to have involved inventive genius*. No one before had used a spiral spring on the face of the board as both a target and a switch."

Petitioners also complain (Petition, p. 3) that the District Court "made neither finding of fact nor conclusion of law" anent the file wrapper estoppel defense. In the extended colloquy between counsel for petitioners and the Court upon the trial (R. 197-204), the District Court made its position clear as to the labored contention of file wrapper estoppel which has been made throughout this case, and is now sought to be reargued here. The District Court also made a finding of fact, No. 28 (R. 495), on this issue.

The Circuit Court of Appeals devoted more than half of its extended opinion to this question and quoted the claim in suit with interlineations to indicate the alterations made therein during the prosecution of the application. That quotation is as follows (matter in parentheses inserted, and matter cancelled shown with cancellation line running therethrough):

"(4) 7. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a sub-

stantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantsly from the upper portion of the standard (ABOVE THE TABLE) with the coils of the spring spaced from the standard ~~and the lower end of the coil spring terminating at a distance above the top surface of the table~~ to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and ~~other~~ conductor means (IN SAID CIRCUIT AND EMBEDDED IN) *carried by* the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit." (119 F. (2d) 352.)

The only significant alteration in the claim is that in which the term "carried by" was altered to "embedded in" the table. The entire dispute in the Circuit Court of Appeals resolved itself into the interpretation of the meaning of the words "embedded in"—clearly a simple factual issue. The Circuit Court of Appeals said (119 F. (2d) 352-353):

"The main controversy here is over the meaning of the word 'embed.' Webster defines it: 'To set solidly as in a bed; to lay in surrounding matter; to bed; as to embed a brick in mortar.' The Oxford English Dictionary defines it: 'To fix firmly in a surrounding mass of some solid material.' Appellants rely upon these two authorities, and construe each to mean that the thing embedded must not extend above or below the embedding material, which in this case is the top board of the pin table. The claim does not specifically require the contact to be below the top surface and above the bottom surface of the board, but of course it must be there, if appellants' construction of the definitions is correct. They urge its correctness because its consists with the intention of Nelson as expressed in his letter to the examiner, to which we have previously referred, and with the intention of the examiner who accepted the amendment upon receipt of the letter.

"We cannot accept appellants' construction of the definitions referred to. A reading of them convinces us that if a thing is solidly set in surrounding matter or if it is fixed firmly in a surrounding mass of solid material, it must be considered as being embedded in the matter or material regardless of whether it protrudes above or below the matter or material. In arriving at the intention of both the patentee and the examiner, we are also warranted in looking at the drawings and specifications. The drawing clearly discloses that the embedded ferrule, which is the complementary conductor, extends both above and below the table, and we think there can be no doubt that this was observed and approved by the examiner when he allowed the claim. So far as the ferrule is concerned, it is clear that the examiner did not approve appellants' construction of the definition of 'embed,' for neither the drawings nor the specification indicated any such limitation. The drawings indicate the contrary. In Nelson's letter it is not clear why he should have said that his conductor contact was to be embedded in the table, because the examiner's remarks on his last rejection of claim 7, and Nelson's amendment in response thereto required no such construction. Moreover, under any construction of the word 'embed' which has been suggested, it would seem impossible to set solidly and to fix firmly an electrical contact designed to open and close frequently. We speak here with respect to contact as an accomplished fact, as distinguished from points of contact which are necessarily used in making the contact.

"The later embodiments of appellee's claim have further extended the ferrule upwardly above the table top, yet its bottom is set solidly and fixed firmly in the surrounding solid wood of the table top, and we think it must be considered as embedded therein. We hold there is no file wrapper estoppel here."

The Circuit Court of Appeals did not, as petitioners represent to this court, base its reasoning upon the applicant's "forecast"—a term first used by petitioners and by them made the pivot point of the synthetic controversy

presented by the petition—in the communications passing between him and the Patent Office, but based its decision entirely upon the meaning of the word “embed” and its significance in view of the disclosure made in the patent application as filed.

The “Questions Presented” by the Petition Are Not Present in This Case.

The first “question presented” by the petition, whether the scope of a patent is limited by its claims or may be enlarged therebeyond by “the so-called doctrine of mechanical equivalents,” is not present in this case. The Circuit Court of Appeals held the claim in suit infringed because of the presence of each of its elements in the six infringing structures—in four of them by literal response, and in two to them by the substitution of a simple and obvious equivalent of one of the elements. The claim was not enlarged.

The second “question presented” by the petition asks whether “an informal remark (in one of the applicant’s communications with the Patent Office) about an alternative structure, not originally suggested or claimed, render inapplicable the rule that, a claim which was rejected and surrendered during the pendency of an application cannot be revived and restored to a patent, either by construction or by applying the doctrine of mechanical equivalents of an allowed claim?”

That question is not present in this case. The Circuit Court of Appeals merely referred to the communications between the applicant and the Patent Office in reliance on a decision of this court, *Goodyear Dental Vulcanite Co. v. Davis*, 102 U. S. 222-227, cited by petitioners in the Circuit Court of Appeals in support of the argument that the “construction (of a patent) may be confirmed by what the patentee said when he was making his application.

The understanding of a party to a contract has always been regarded as of some importance in its interpretation." In reliance on this authority the Circuit Court of Appeals referred to the communications passing between the applicant and the Patent Office as confirming the recognition by both the applicant and the Patent Office that the simple reversal attempted in two of the infringing devices was incorporated in the structure described and claimed by the patent. That portion of the opinion relating to the significance of this correspondence is quoted in the chart appended to the back cover of this brief.

The third "question presented" by the petition propounds a question of file wrapper estoppel which is not found in the file wrapper of this application. Petitioners ask whether the presentation of a claim to cover an alternative structure not described in the original application and the acquiescence in the ruling that that structure is not disclosed estops the patentee from contending that the amended claim covers the alternative structure sought to be covered by the rejected claim. No state of facts to which that inquiry is pertinent is presented by this case. The only limitation written into the claim by the applicant was the substitution of the words "embedded in" for the words "carried by" the table. As the Circuit Court of Appeals said:

"Prior to this substitution of language, almost any form of conductor which was mounted on the table in any place or manner, permanently or movably, would have answered the language of the claim. The substitution was made to cover the preferred embodiment of the structure as shown in the drawing, and, as we have stated, it met what we consider the proper interpretation of the word 'embed.' As stated by appellee, it was important that the conductor be embedded in order that the fixed relationship between it and the coil spring would be insured. Its vertical position was unimportant except that it had to be within reach of the terminal

of the coil spring so as to form a contact. The position that was important was its horizontal relation to the coil spring. The position of the latter was fixed by the position of the standard that was likewise embedded in the pin table. With the conductor embedded in the table, there was a fixed and unyielding relationship between the two." (119 F. (2d) 354.)

The "Reasons Relied Upon for Allowance of the Writs" Are Primarily Reasons of Policy Unrelated to This Case, and Urge That This Court Should Abandon the Doctrine of Equivalents Which Has Been Reaffirmed by This Court in a Myriad of Opinions Through Eighty Years.

There are no new questions in this case. Petitioners frankly state that the object of this petition is to have this court reexamine the doctrine of mechanical equivalents, and to abolish it. The doctrine of mechanical equivalents was stated by this court more than eighty years ago and has been reaffirmed in numerous opinions:

Winans v. Denmead, 56 U. S. 330.

Sewall v. Jones, 91 U. S. 171.

Ives v. Hamilton, 92 U. S. 426.

Machine Co. v. Murphy, 97 U. S. 120, 125.

Imhaeuser v. Buerk, 101 U. S. 647.

Duff v. Sterling Pump Co., 107 U. S. 636, 639.

Rowell v. Lindsay, 113 U. S. 97.

Morley Sewing Machine Co. v. Lancaster, 129 U. S. 263, 273.

Hoyt v. Horne, 145 U. S. 302.

Miller v. Eagle Mfg. Co., 151 U. S. 186, 207.

Deering v. Winona Harvester Works, 155 U. S. 286.

Westinghouse v. Boyden Power Brake Co., 170 U. S. 537, 575.

Hobbs v. Beach, 180 U. S. 383, 399.

Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U. S. 405, 414-415.

Abercrombie & Fitch Co. v. Baldwin, 245 U. S. 198, 207.

Hildreth v. Mastoras, 257 U. S. 27, 36.

Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U. S. 45, 63.

Sanitary Refrigerator Co. v. Winters, 280 U. S. 30, 41-42.

Smith v. Snow, 294 U. S. 1, 14-20.

Petitioners ingenuously urge that, "It is safe to say that patent litigation would be markedly reduced if the doctrine of mechanical equivalents were either clarified or abolished." (Petition, p. 6.) In reply, it may be said that it is equally safe to say that all litigation would be markedly reduced if all legal doctrines were either clarified or abolished.

The doctrine of equivalents is clear. No court has experienced any difficulty in its application. It requires no clarification.

There is reason for the doctrine of mechanical equivalents. The statute (Title 35, U. S. Code, Section 33) requires that a patentee who has invented a machine shall:

"Explain the principle thereof, and the *best mode* in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery."

All that the statute requires of the inventor is that in his specification he shall set forth the *best mode* of applying the principle of his invention. It does not require him to anticipate and disclose every conceivable mechanical variation and formal rearrangement which may be made of the parts of his machine. It requires him to point out that "which he claims as his invention." It does not require him to present a claim for every conceivable variant form

in which his invention may be embodied, without affecting the principle of its structure and operation.

It is obviously impossible for an inventor to anticipate and make a claim for every alternative form in which his invention may be incorporated. The mere physical labor in the Patent Office imposed by any such doctrine would preclude it as a practical method of administration of the patent laws. The Patent Office has long asserted as a ground of rejection the undue multiplicity of claims.

These considerations make evident why the doctrine of mechanical equivalents is a necessary part of the doctrines of patent interpretation. Its propriety has long been recognized by this court, and has never been better stated than in the opinion of Mr. Justice Stone in *Smith v. Snow*, 294 U. S. 1, 11.

"We may take it that, as the statute requires, the specifications just detailed show a way of using the inventor's method, and that he conceived that particular way described was the best one. But he is not confined to that particular mode of use since the claims of the patent, not its specifications, measure the invention. * * * While the claims of a patent may incorporate the specification or drawings by reference, * * * and thus limit the patent to the form described in the specifications, it is not necessary to embrace in the claims or describe in the specifications all possible forms in which the claimed principle may be reduced to practice. It is enough that the principle claimed is exemplified by a written description of it and of the manner of using it 'in such full, clear, concise, and exact terms' as will enable one 'skilled in the art to make, construct, compound and use the same.' "

The Cases Cited in Petitioners' Argument Deal With Factual Situations Which Have No Parallel in This Case.

Petitioners repeatedly assert the recent cases of *Schriber-Schroth v. Cleveland Trust Company*, 305 U. S. 47, and 311 U. S. 211, in support of their argument. These cases involved patents in which critical changes had been made during their prosecution. As this court said in the first case (305 U. S. 47 at 49):

"The principal question for decision is whether the court below rightly sustained the validity of two patents by including in the combination constituting the alleged invention of each an element which was not in terms described in one, and the description of which in the other was added only by amendment to the application after it was filed."

The change there involved was the alteration of a patent for a piston "by substituting, by way of amendment 'webs laterally flexible' for 'extremely rigid webs' in the description of his invention." (305 U. S. 56.) The Court held that the patent could not be validly so amended.

In the second case another piston patent was involved and it was sought to construe the claims in suit to correspond in scope with previously cancelled claims. This court held this could not be done under the familiar doctrine of file wrapper estoppel.

Obviously, these cases in no way conflict with the decision of the Circuit Court of Appeals in construing the terms of the patent according to their dictionary definitions.

Conclusion.

The decision of the Circuit Court of Appeals for the Seventh Circuit in this case religiously followed the doctrines long laid down by this court. Any controversy which petitioners assert is purely one of fact, a quarrel with dictionary definitions of terms.

The petition does not present a case for the allowance of the writs of certiorari sought and it is respectfully submitted that the petition should be denied.

Respectfully submitted,

CASPER W. OOMS,

Attorney for Respondent.

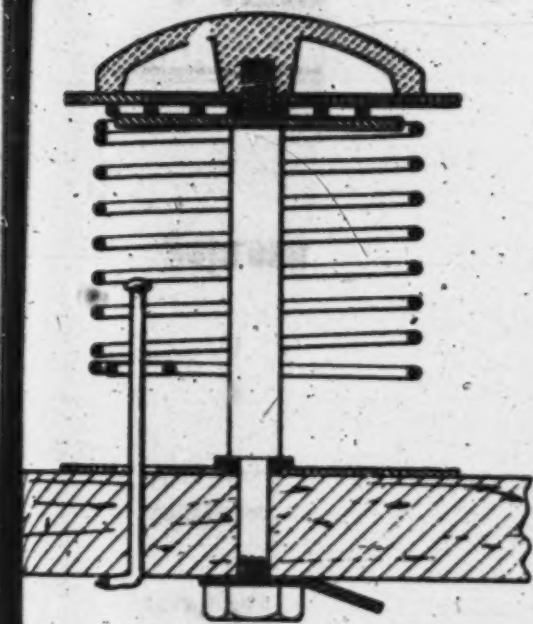
JOHN A. RUSSELL,

Of Counsel.

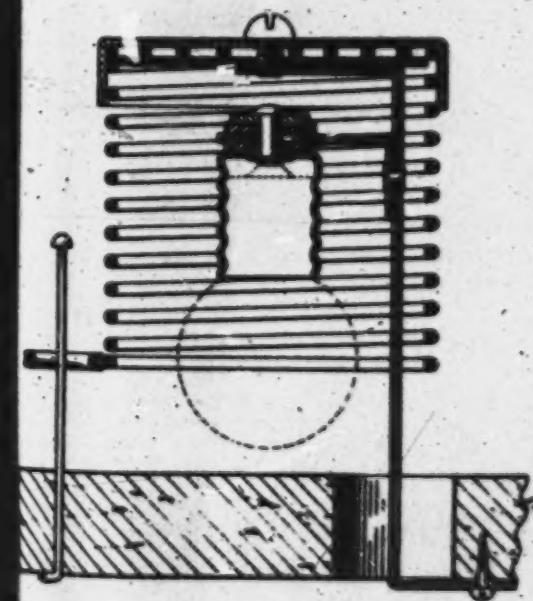
Chicago, Illinois,

July 3, 1941.





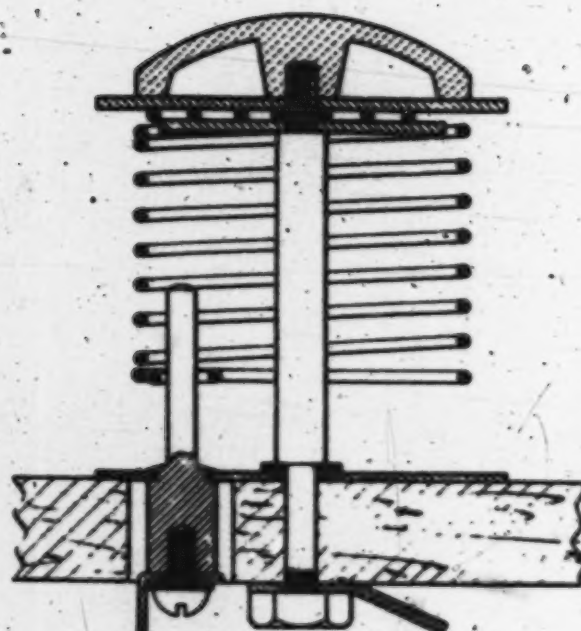
PLAINTIFF'S EXH. 5



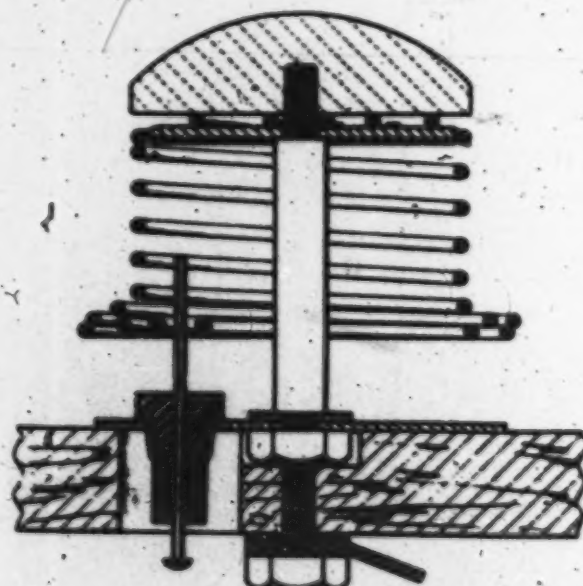
PLAINTIFF'S EXH. 7

On the question of infringement appellants contend that their devices, marked as plaintiff's exhibits 5 and 7, do not infringe because the pin, which is a nail driven through the block, which forms the conductor in the electrical circuit, is not embedded in the table. In view of what we have said with respect to the definition of the word "embed," we think there is no merit in this contention. Otherwise, the two devices read upon the claim and we think they infringe.

[7] With respect to the exhibits of Chicago Coin Machine Company and Geco, Inc., marked plaintiff's exhibits 6 and 10, it may be said that they differ from exhibits 5 and 7 only in that appellants have cut a large hole in the pin table at the point where the conductor is normally embedded and have covered this hole with an additional plate of metal which is secured to a pin table by the standard, and they have embedded the conductors in this metal plate. The metal plate serves no function except to support the pin which, in the previous device, was driven directly into the board. In other words, they have transformed the pin table from a single solid board into a structure composed of a solid board with an overlying metal layer. They have separated one unit into two parts which perform the same function in substantially the same manner, and we think infringement is clear. *Highway Appliances Co. v. American Concrete Expansion Joint Co.*, 7 Cir., 93 F.2d 113, and *Chicago Lock Co. v. Trench*, 7 Cir., 72 F.2d 482.



PLAINTIFF'S EXH. 6

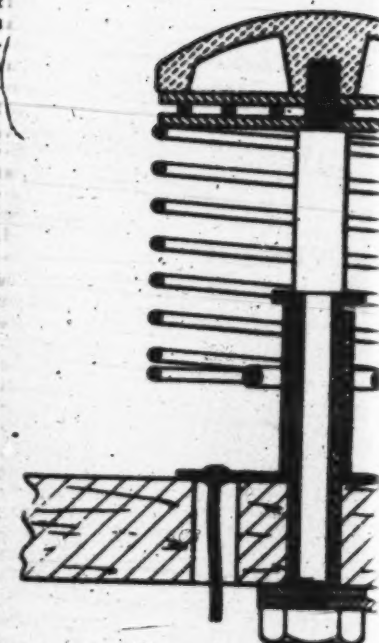


PLAINTIFF'S EXH. 10

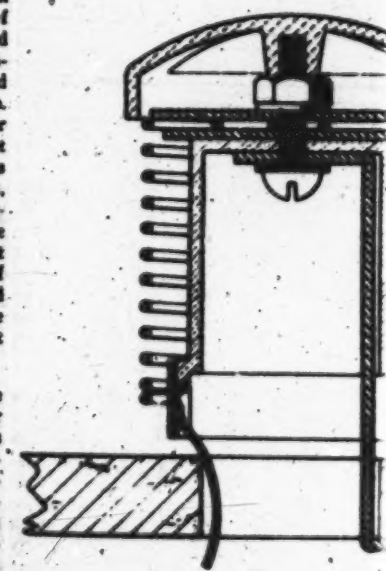
In the accused devices of the Exhibit Supply Company, referred to as plaintiff's exhibits 8 and 9, the laminations in exhibits 6 and 10 are removed, and there is substituted therefor a plastic core. Although this is not horizontally spread out to form the laminations of the pin table, it is attached to the pin table equally securely by means of the standard which is embedded in the board. As to these exhibits, appellants stress the fact that the terms of the Nelson patent were varied from a demand that the conductor be "carried by the table at a point spaced from the standard" to "embedded in the table at a point spaced from the standard." This argument likewise depends upon the correctness of appellants' definition of the word "embed." Prior to this substitution of language, almost any form of conductor which was mounted on the table in any place or manner, permanently or movably, would have answered the language of the claim. The substitution was made to cover the preferred embodiment of the structure as shown in the drawing, and, as we have stated, it met what we consider the proper interpretation of the word "embed." As stated by appellee, it was important that the conductor be embedded in order that the fixed relationship between it and the coil spring would be insured. Its vertical position was unimportant except that it had to be within reach of the terminal of the coil spring so as to form a contact. The position that was important was its horizontal relation to the coil spring. The position of the latter was fixed by the position of the standard that was likewise embedded in the pin table. With the conductor embedded in the table, there was a fixed and unyielding relationship between the two. That the vertical position of the conductor was unimportant for any reason except reaching the terminal of the coil spring, is clearly shown by Nelson's own anticipation, which he expressed in one of his communications to the Patent Office, of the simple reversal which defendants first adopted. He therefore realized that if the pin were embedded in the table and extended upward to meet a terminal on the coil springs, his structure would be present and readable upon the claim.

[8] Appellants at different times have varied the elevation at which the conductor was mounted, but we think it is obvious that they have never varied the one essential demand of the claim that the conductor be embedded either directly or indirectly in the pin table. We agree with appellee that exhibits 8 and 9 are merely mechanical equivalents of the Nelson structure, and we are convinced that appellants are in error in contending that the Nelson patent will not reach mechanical equivalence because of this change in terminology in the Patent Office. *Gray Telephone Pay Station Co. v. Baird Mfg. Co.*, 7 Cir., 174 F. 417; *Libbey Glass Mfg. Co. v. Albert Pick Co.*, 7 Cir., 63 F.2d 469.

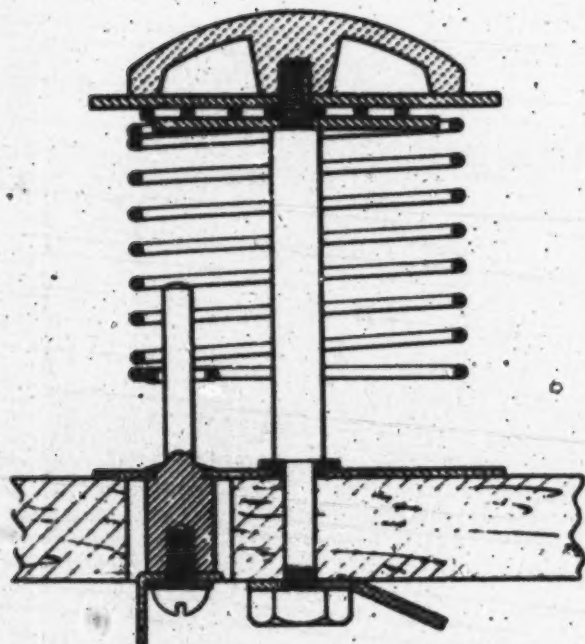
The decrees are affirmed.



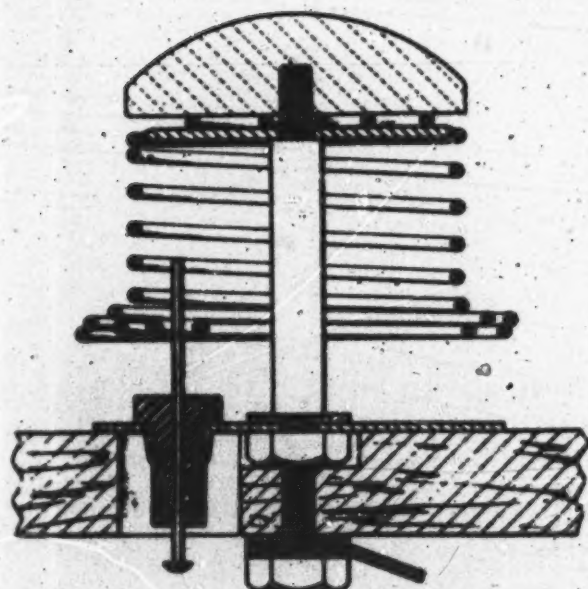
PLAINTIFF'S



PLAINTIFF'S I



PLAINTIFF'S EXH. 6

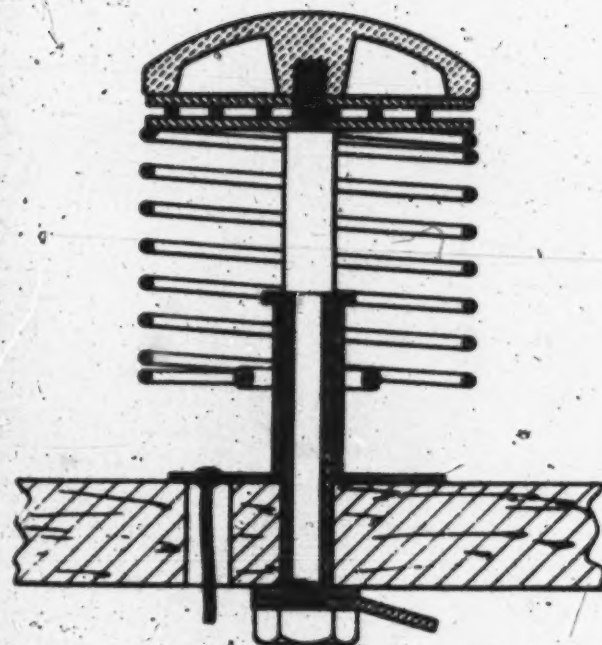


PLAINTIFF'S EXH. 10

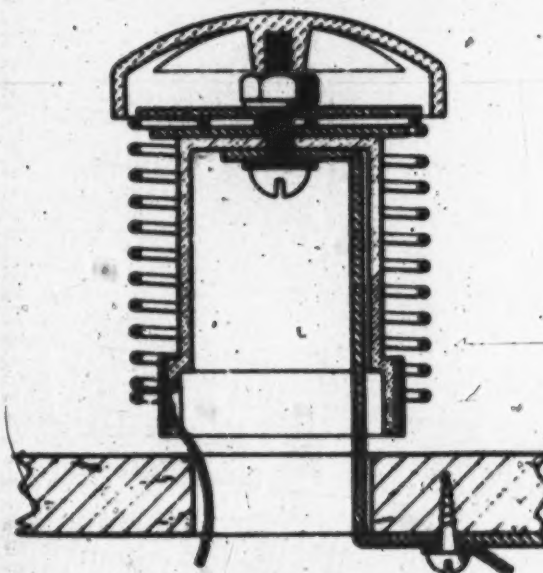
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[8] Appellants at different times have varied the elevation at which the conductor was mounted, but we think it is obvious that they have never varied the end essential demand of the claim that the conductor be embedded either directly or indirectly in the pin table. We agree with appellee that exhibits 8 and 9 are merely mechanical equivalents of the Nelson structure, and we are convinced that appellants are in error in contending that the Nelson patent will not reach mechanical equivalence because of this change in terminology in the Patent Office. *Gray Telephone Pay Station Co. v. Baird Mfg. Co.*, 7 Cir., 174 F. 417; *Libbey Glass Mfg. Co. v. Albert Pick Co.*, 7 Cir., 63 F.2d 405.

The decrees are affirmed.



PLAINTIFF'S EXH. 8



PLAINTIFF'S EXH. 9

FILE COPY

Office - Supreme Court, U. S.

~~FILED~~

NOV 18 1941

CHARLES ELMORE CROPLEY
CLERK

IN THE

Supreme Court of the United States

OCTOBER TERM, 1941.

No.

EXHIBIT SUPPLY COMPANY,
Petitioner,

vs.

ACE PATENTS CORPORATION,
Respondent.

No. 154.

GENCO, INC.,

Petitioner,

vs.

ACE PATENTS CORPORATION,
Respondent.

No. 155.

CHICAGO COIN MACHINE COMPANY,
Petitioner,

vs.

ACE PATENTS CORPORATION,
Respondent.

No. 156.

MOTION TO DISMISS WRITS OF CERTIORARI WITH SUPPORTING BRIEF.

Re Writs of Certiorari to the United States Circuit Court of Appeals
for the Seventh Circuit, Granted November 10, 1941, Upon Petition
for Rehearing After Having Been Denied October 13, 1941.

CASPER W. OOMS,

Attorney for Respondent.

JOHN A. RUSSELL,
Of Counsel.

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IN THE
Supreme Court of the United States

OCTOBER TERM, 1941.

No.

EXHIBIT SUPPLY COMPANY,

Petitioner,

vs.

ACE PATENTS CORPORATION,

Respondent.

No. 154.

GENCO, INC.,

Petitioner,

vs.

ACE PATENTS CORPORATION,

Respondent.

No. 155.

CHICAGO COIN MACHINE COMPANY,

Petitioner,

vs.

ACE PATENTS CORPORATION,

Respondent.

No. 156.

MOTION TO DISMISS WRITS OF CERTIORARI.

*To the Honorable the Chief Justice of the United States
and the Associate Justices of the Supreme Court of the
United States:*

Writs of Certiorari herein, denied on October 13, 1941, were granted November 10, 1941 pursuant to petition for rehearing which presented grounds for allowance of the writs not mentioned in the Petition for Writs of Certiorari. Because no opportunity for reply to the Petition for Rehearing and the newly asserted grounds for granting of the writs was extended Respondent, and to meet the assertions first made in that Petition, this Motion to Dismiss the Writs of Certiorari is respectfully presented.

The grounds presented in the Petition for Rehearing existed when the Petition for Writ of Certiorari was

presented, but were not there advanced, although counsel for Petitioners, John H. Sutherland, had previously presented the same grounds in earlier litigation in this court.* Had these grounds been advanced in the Petitions for Writs of Certiorari they could have been properly replied to in Respondent's Brief in opposition.

In seeking rehearing, Petitioners asserted that "every reason advanced for the granting of the Writ in No. 323 (*Muncie Gear Works, Inc., et al. v. Outboard, Marine & Mfg. Co., et al.*) also exists in these cases." **This representation is not true.**

1. There is nothing in common between our cases and those cited by Petitioners except possibly the question of alleged concentration of industry in one circuit, which alone has never been accepted by this Court as a substitute for diversity of decisions. Further, all cases cited by Counsel involved diversity of opinions between the inferior Courts within the Circuit. The granting of writs of certiorari alone on the ground of concentration would set a dangerous precedent requiring this Court not only to become a trier of disputed facts as to the issue of concentration of industry, but would lead gradually, with varying degrees of concentration asserted, to this Court becoming a Court of review for all patent cases, and other cases as well, regardless of complete concurrence in the inferior courts upon the issues involved.

2. In the *Muncie* case the decree of the District Court had invalidated the patent, while the Circuit Court of Appeals sustained its validity, thus bringing the case within that class of cases which this Court has reviewed even in the absence of a conflict between circuits. In the proceedings now before this Court, the District Court and a unanimous Court of Appeals expressly concurred in a judgment of validity and firmly and specifically ruled upon the issues now sought to be reviewed.

* *Schreiber-Schroth v. Cleveland Trust Co.*, 305 U. S. 47.

3. The *Muncie* case involved a patent conceded to dominate "the manufacture of large-sized outboard motors", an industry confined to the Seventh Circuit, while our cases involve a patent which does not dominate an industry and which covers a device employed in rebuilding pin tables throughout the United States, and a device in use in every village and city in the country.

4. In the *Muncie* case the four claims involved were inserted into the application years after it was filed; accompanied by an alteration in the specification, and long after the industry had adopted the device covered by the claims, whereas in our cases the single claim, inserted within five months after filing of the application, unaccompanied by any alteration in the specification was narrower than other claims originally filed, was never broadened, and reads directly upon the device shown in the patent drawing and described in the specification as originally filed.

The principles and reasoning under which Petitioners seek to justify issuance of the writs herein have no application to our cases and the writs were improvidently issued and should be dismissed.

WHEREFORE, Respondent respectfully prays that the Writs of Certiorari herein granted be dismissed.

Respectfully submitted;

ACE PATENTS CORPORATION,

By CASPER W. OOMS,

Its Attorney.

JOHN A. RUSSELL,
Of Counsel.

I hereby certify that the foregoing Motion to Dismiss is filed in good faith and not for purposes of delay.

CASPER W. OOMS.

BRIEF IN SUPPORT OF MOTION TO DISMISS WRITS OF CERTIORARI.

I. To Accept Concentration of Industry in One Circuit Alone as Grounds for Issuance of the Writ of Certiorari Would Make of This Court a Trial Tribunal and Open the Door to Practically All Cases.

Should this court assume jurisdiction whenever a concentration of industry is *alleged* to exist, it would be compelled to pass in the first instance upon controverted allegations as to the existence of such alleged concentration. Every case presented to this court would have affidavits and counteraffidavits relating to alleged concentration of industry, and every litigant would be entitled to believe that he could open the doors to this court by asserting concentration of industry.

No industry is wholly concentrated within one circuit. Acts of infringement by reconstruction, sale, or use necessarily occur throughout the country. Immediately the question arises as to what degree of concentration is necessary to sustain an allegation of concentration. This alone presents a factual issue which would arise in every case for the first time in this court and present a difficult problem of determination because of the lack of any acceptable standard. The issuance of the writs in our cases would establish a dangerous precedent and leave the requirements of entrance to this court by certiorari in a state of chaos.

II. This Case, Unlike Any Patent Case in Which This Court Has Granted the Writ of Certiorari in the Absence of Diversity of Decision Between the Circuit Courts of Appeals, Is One Wherein the District Court and a Unanimous Circuit Court of Appeals Have Both Sustained the Patent and Expressly Passed Upon the Issues Sought To Be Reviewed Here.

In no reported case has this Court granted the writ of certiorari merely because of the alleged concentration of the industry in one circuit. In each case the "doubtful validity" of the patent, manifested by differences of opinion between the trial and appellate courts, or the lack of concurrence in their respective findings, has been referred to as one controlling fact warranting the issuance of the writ.

In *Schriber-Schroth Co. v. Cleveland Trust Co.*, 305 U. S. 47, after reviewing the conflict of decisions of the District Court and Circuit Court of Appeals, this court said (page 50):

"We later granted certiorari * * * on a petition for rehearing showing that, **notwithstanding the doubtful validity of the patents**, litigation elsewhere with a resulting conflict of decision was improbable because of the concentration of the automobile industry in the sixth circuit."

In the first of the cases of this type, *Altoona Public Theatres, Inc. v. American Tri-Ergon Corp.*, 294 U. S. 477, the patent owners, after denial of the writ of certiorari, filed many suits in one circuit against practically the entire industry in pursuance of a deliberate policy to confine the litigation to that circuit, and although there was no express divergence in the respective conclusions of the District Court and the Circuit Court of Appeals, this Court found a lack of concurrence of the inferior courts and granted the writ of certiorari. In its opinion this Court said (page 480):

"While both courts below have found invention and

sustained the patent, the Court of Appeals, as will presently appear in more detail, did not pass on the separate claims in issue, but found invention in a combination of elements not embraced in any single claim. In consequences, the case presents no question of concurrent findings by the courts below ~~that the claims in~~ issue severally involve invention.

That case was accompanied by a companion case in which the District Court and Circuit Court of Appeals reached conflicting decisions on the question of validity, certiorari was denied, and thereupon the entire industry was immediately subjected to suit in a single circuit. *Paramount Publix Corp. v. American Tri-Ergon Corp.*, 294 U. S. 464.

In the *Muncie* case the Circuit Court of Appeals directly reversed the District Court. 119 F. (2d) 404, 408.

In the three cases now before the Court the District Court was expressly affirmed on the very issues now sought to be reviewed. 119 F. (2d) 349, 352-354. There is thus, in the three cases in suit, complete concurrence among the administrative determinations of the Patent Office and the subsequent judicial determinations of the Courts.

III. While the Manufacturing Industry in Which the Invention of the Patent in Suit Is Employed Is Largely Located Within the Seventh Circuit, Pin Tables Employing That Invention Are Rebuilt in Several Places in the United States and Are Used in Practically Every City in the United States.

The invention of the patent in suit is an electrical switch used upon the playing surface or playing board of so-called pin tables. Although the large manufacturers of pin tables are all located within the Seventh Circuit, as shown by the accompanying affidavit of George D. Moloney, the business of installing playing boards employing these switches within the cabinets of reconditioned or restyled pin tables

is not confined to the Seventh Circuit, but is represented in the cities of New York, Philadelphia and Seattle, within at least three other circuits. Further, as shown by that affidavit, pin tables employing the invention of the patent in suit are used in practically every city and village in the United States.

Petitioners' characterization of this industry as one "dominated by the patent in suit" is extravagant. At the time of the fixing of bonds in the District Court for the stay of the injunction, each of the three Petitioners filed affidavits that the respective Petitioners were discontinuing the use of bumper switches of the type accused to infringe the patent in suit herein and did not intend to manufacture, use or sell such bumper switches thereafter. (See affidavit of George D. Moloney appended hereto.)

This case is thus readily distinguished from the *Muncie* case, No. 323, in the fact that therein it was conceded by the respondent that the patent in suit dominated that part "of the industry representing the manufacture of large-sized outboard motors", wholly located within one circuit, while here the patented device is sold and used throughout the United States.

IV. This Case Does Not Present Any Question of Law as to the Broadening of a Patent After Filing of the Application.

The Petition for Rehearing recognizes that the *Muncie* case, No. 323, involved a situation like that considered by this court in the *Schriber-Schroth* case, 305 U. S. 47, wherein the patent was amended to claim and dominate a structure not disclosed or claimed when the application for the patent was filed. The Petition for Rehearing says: "Precisely the same situation is involved here." That is not true.

The single claim of the Nelson patent here in suit was never broadened. When filed it was narrower than claims in the application as originally filed. The claim was formally amended and further narrowed as readily appears from this reproduction of the claim from the opinion of the Circuit Court of Appeals with marginal indications of the time of filing and amendment (R. 445-446):

Application
filed Jan 12,
1937.

This Claim
filed June 10,
1937.

Amended
Jan. 19, 1938.

Amended
Jan. 19, 1938.

Amended
Sept. 14, 1937.

(4) π . In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantly from the upper portion of the standard (ABOVE THE TABLE) with the coils of the spring spaced from the standard ~~and the lower end of the coil spring terminating~~ *at a distance above the top surface of the table* to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and ~~other~~ conductor means (IN SAID CIRCUIT AND EMBEDDED IN) *carried by* the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

The nature and effect of the amendment of this claim were thoroughly considered by the District Court (R. 198-200; Finding 28, R. 495), and by the Circuit Court of Appeals (R. 675-677) (119 F. (2d) 352-353).

The patent application was filed January 12, 1937. The claim in suit was filed upon the first amendment, June 10, 1937, and the subsequent amendments made respectively September 14, 1937 and January 19, 1938. No alteration was made at any time in the specification.

In contra-distinction to this state of facts, in the *Muncie* case, No. 323, the four claims in suit, assertedly defining "a wholly different invention from that claimed by the application as originally filed," were inserted in the application almost three years after the filing of the application, accompanied by alteration in the specification "by the addition of subject matter not theretofore contained" therein and "more than two years after extensive commercial adoption of structures embodying such subject matter." In that case the opinion of the Circuit Court of Appeals (119 F. (2d) 404, 407-408) contains no discussion or consideration of the nature and effect of these alterations of the patent there in suit.

The statement in the petition herein that the decision of the Circuit Court of Appeals for the Seventh Circuit did not treat the question of broadening after intervening rights had arisen is an astute attempt to render this case comparable to the *Muncie* case. The opinion of the Circuit Court of Appeals herein devotes three pages to the amendments of the claim (R. 675-677). They were not *broadening* amendments and there was therefore no occasion to discuss the effect of *broadening* amendments. There was, likewise, no occasion to discuss intervening rights in the absence of a *broadening* amendment and in the complete absence from the record of any evidence whatsoever of intervening rights.

The Petition for Rehearing also states that these cases involve "precisely the same situation" as that in the *Muncie* case, "where the application for patent, as filed, did not describe, or attempt to cover, devices of the char-

acter now held to infringe, but, after the accused device was on the market, the application was amended to cover it." (Pet. for Rehearing, p. 3) **This statement is not true.**

When the application for the Nelson patent in suit was filed, it contained this claim reading directly upon each of the infringing devices before the Court:

"2. In a ball rolling game, a table, the combination, with said table of a support thereon carrying a pendant coil spring including an extension, said spring constituting one conductor member of a switch disposed in an electric circuit, the other member of the switch comprising a conductor carried by the table and adapted to be engaged by said extension, said members being normally gapped apart to hold the circuit open but adapted to close momentarily to establish the circuit when a ball bumps the spring." (R. 437-438)

Manifestly these cases have nothing in common with either the *Muncie* case or the earlier cases upon which Petitioners rely.

WHEREFORE, Respondent respectfully prays that the Writs of Certiorari herein granted be dismissed.

Respectfully submitted,

ACE PATENTS CORPORATION,

By CASPER W. OOMS,

Its Attorney.

JOHN A. RUSSELL,

Of Counsel.

November 17, 1941.

APPENDIX.

AFFIDAVIT IN SUPPORT OF MOTION TO DISMISS WRITS OF
CERTIORARI.

STATE OF ILLINOIS, }
COUNTY OF COOK. } ss.

GEORGE D. MOLONEY, being first duly sworn, on oath deposes and says:

I am of legal age and a citizen of the United States, residing at 6209 North Mozart Street, Chicago, Illinois.

I am a Past President, a Past Vice-President and a Past Director of Coin Machine Industries, Inc., an Association comprising members whose business is that of manufacturing and selling coin-operated devices, and am Vice-President of the Bally Manufacturing Co. and Lion Manufacturing Corporation, 2640 Belmont Avenue, Chicago, Illinois, which manufacture and sell coin-operated devices, such as pin tables, beverage venders, electric light beam games, etc.

I am fully familiar with the Nelson Patent No. 2,109,678 in suit herein, the device described and claimed therein, and all matters relating to the manufacture, distribution and sale of coin-operated pin tables employing that device upon the playing surface thereof.

That I have read the affidavits accompanying the Petition for Rehearing herein; that the manufacture of such pin tables is not confined to ten large manufacturers in the State of Illinois within the Seventh Judicial District of the United States as set forth in said Affidavits. That there are hundreds of Distributors and Jobbers and thousands of Operators throughout the entire United States who sell, distribute, and operate pin tables employing the patented

devices in virtually every city and village throughout the United States.

That in addition to the large manufacturers of pin tables located in the Seventh Circuit there are many firms located outside of the Seventh Circuit which assemble, restyle and re-fabricate pin tables employing spring switches embodying the principle of the Nelson Patent.

That pin tables are novelty devices of short life and many firms buy second-hand and used pin tables and rebuild them so as to change the playing field to include devices such as covered by the patent in suit. This is done by many firms throughout the entire country, several I know being located in Seattle, Washington; Philadelphia, Pennsylvania and New York City, New York.

I am familiar with the affidavits filed in the United States District Court by each of the Petitioners herein at the time of fixing the bonds for the stay of the injunctions in these cases, and each of the Petitioners by one of its officers therein stated that it was discontinuing the use of bumper switches of the type accused to infringe the patent in suit and did not intend to manufacture, use or sell such bumper switches thereafter.

GEORGE D. MOLONEY,
Affiant.

SUBSCRIBED AND SWORN to before me this 17th day of November, A. D. 1941.

(SEAL)

MARTIN M. NELSON,
Notary Public.

U. S. Supreme Court, U. S.

FILED

NOV 21 1941

CHARLES ELMORE CROPLEY,
CLERK

IN THE
Supreme Court of the United States

OCTOBER TERM, A. D. 1941.

EXHIBIT SUPPLY COMPANY,
Petitioner.

vs.

ACE PATENTS CORPORATION,
Respondent.

No. 154.

GENCO, INC.,
Petitioner.

vs.

ACE PATENTS CORPORATION,
Respondent.

No. 155.

CHICAGO COIN MACHINE COMPANY,
Petitioner.

vs.

ACE PATENTS CORPORATION,
Respondent.

No. 156.

**REPLY TO BRIEF IN OPPOSITION TO RESPONDENT'S MOTION
TO DISMISS WRITS OF CERTIORARI.**

CASPER OOMS,
Attorney for Respondent.

JOHN A. RUSSELL,
Of Counsel.

November 19, 1941.

IN THE
Supreme Court of the United States

OCTOBER TERM, A. D. 1941.

EXHIBIT SUPPLY COMPANY,
Petitioner,

vs.

ACE PATENTS CORPORATION,
Respondent.

No. 154.

GENCO, INC.,

Petitioner,

vs.

ACE PATENTS CORPORATION,
Respondent.

No. 155.

CHICAGO COIN MACHINE COMPANY,
Petitioner,

vs.

ACE PATENTS CORPORATION,
Respondent.

No. 156.

**REPLY TO BRIEF IN OPPOSITION TO RESPONDENT'S MOTION
TO DISMISS WRITS OF CERTIORARI.**

I.

Petitioners urge this Court to disregard the Motion to Dismiss Writs of Certiorari granted herein on the ground that although said Writs were granted upon a Petition for Rehearing raising entirely new issues, Respondent might have resisted the Petition for Rehearing. The rules of this Court contain no provision for a reply to such Peti-

tion. Petitioners cite Rule 27 (4) which relates only to briefs upon the merits.

The fact remains that Petitioners by their Petition for Rehearing presented to this Court grounds for the Writs of Certiorari urged for the first time in that Petition, and only by the Motion to Dismiss the Writs of Certiorari is opportunity for reply afforded Respondent.

II.

Counsel for Petitioners seeks to excuse the belated presentation of the grounds upon which the Writs of Certiorari were herein sought in a Petition for Rehearing on the assertion that an advertisement of the Pacent Novelty Mfg. Company appeared in the record at page 397, and that Counsel did not learn that the Company had gone out of business in 1937 until October 24, 1941.*

The record does contain that advertisement but it also contains twelve specific references to that Company's having gone bankrupt and out of business in 1937: (See R. 165, 181, 213, 235, 237, 238, 242, 262, 290, 494, 503, and 513.)

The District Court specifically referred in its Findings in each case "to the failure of the Pacent Novelty Mfg. Company in the spring of 1937". (Finding 20, R. 494, 503, 513.)

Petitioners' withholding the presentation of this ground for the granting of Writs of Certiorari until the Petition for Rehearing appears a deliberate effort to prevent Respondent's reply thereto.

* "Affiant states that when the petition for writ of certiorari in these cases was originally prepared he was under the mistaken impression that the industry in question here was not concentrated in the Seventh Circuit; that this mistaken impression arose from the fact that an advertisement of the Pacent Novelty Mfg. Company of Utica, New York, appeared in the record at page 397;

That he was not advised that said Pacent Novelty Mfg. Co. had gone out of business so that the industry became concentrated in the Seventh Circuit until on or about October 24, 1941." (Affidavit of John H. Sutherland, Reply, p. 4.)

It is respectfully submitted that the Writs of Certiorari should be dismissed upon the grounds stated in the Motion to Dismiss.

Respectfully submitted,

CASPER OOMS,
Attorney for Respondent.

JOHN A. RUSSELL,
Of Counsel.

November 19, 1941.

FILE COPY

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FILED

JAN 5 1942

CHARLES ELMORE CRUPLEY
CLERK

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ACE PATENTS CORPORATION,
Respondent.

No. 156.

BRIEF FOR RESPONDENT.

CASPER W. OOMS,

Attorney for Respondent.

JOHN A. RUSSELL,

Of Counsel.

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IN THE
Supreme Court of the United States

OCTOBER TERM, A. D. 1941.

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<hr/>		
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<hr/>		
CHICAGO COIN MACHINE COMPANY, <i>Petitioner,</i>	}	No. 156.
<i>vs.</i> ACE PATENTS CORPORATION, <i>Respondent.</i>		

BRIEF FOR RESPONDENT.

*To the Honorable the Chief Justice of the United States
and the Associate Justices of the Supreme Court of the
United States:*

The three suits here on Writs of Certiorari present only two questions argued by Petitioners: (1) The desirability of the doctrine of mechanical equivalents in the patent law. (2) A question of file wrapper estoppel.

The other question argued by Petitioners relates to asserted intervening rights of Petitioners which are without support in the Record.

A STATEMENT OF THE CASE. .

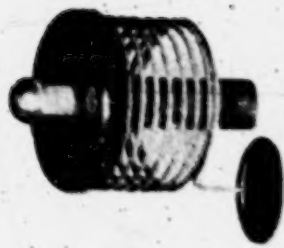
The Patented Device.

The subject matter of the patent in suit is a target for a pin table which could be struck from any direction whatsoever, which formed a resilient self-restoring switch without crevices and pivots for the collection of dirt, could be easily mounted as a unit on the upper surface of a pin table where it could be instantly seen whether the device was in or out of adjustment, and where adjustment could be readily effected merely by twisting the device upon its standard. The device and the place of the invention in its art are succinctly stated by the Circuit Court of Appeals. (R. 670-672; 119 F. (2d) 349, 350.)

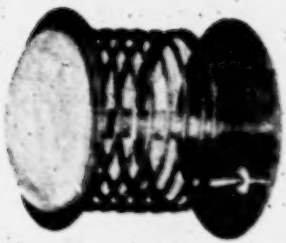
The statements of the Circuit Court of Appeals with respect to the immediate and considerable commercial success of the patented device (R. 675) and the presence of invention in the patented structure over the voluminous prior art (R. 672-675) are not here in issue. Both reflect specific findings by the District Court upon the controverted questions. (R. 494-495, Findings 22-26.)

Inasmuch as the issue of equivalency, necessarily involving the functions of the patented structure, is before the Court, this brief statement by the District Court of the advantages resident in the patented structure is pertinent:

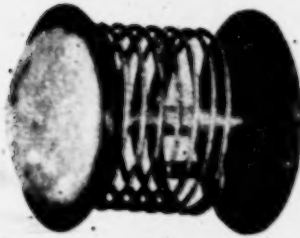
"11. The advantages of the device invented by Nelson lie in the fact that this simple structure forms both a target and a switch, a target which is accessible from any direction and so resilient that the ball which strikes it rebounds and thus increases the activity on the board, that a ball striking it is not disabled and may continue in its course about and down the board to strike similar targets about the board, that the device is extremely simple and requires no skill to install,



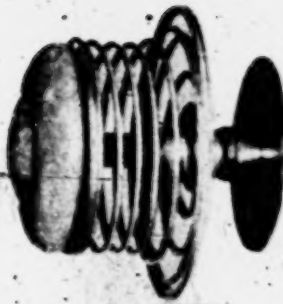
Patented Device
Plaintiff's Exh. 11



Plaintiff's
Exhibit 5



Plaintiff's
Exhibit 6



Plaintiff's
Exhibit 8

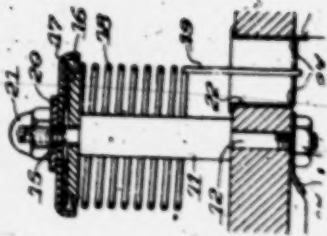
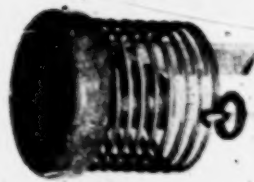
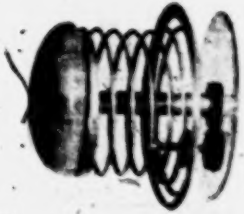


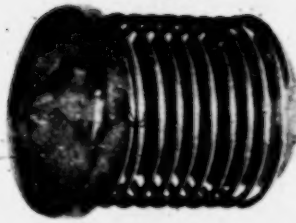
Fig. 2 of Nelson
Patent (R. 548)



Plaintiff's
Exhibit 7



Plaintiff's
Exhibit 10



Plaintiff's
Exhibit 9

PLATE I

Photographs of Nelson Patented Device (Pl. Exh. 11) and
the Six Infringing Devices

that the device has no pivots or crevices into which dirt might enter to disable it, that the device can be adjusted merely by rotating the spring about the standard upon which it is centrally mounted, and that if the device does go out of adjustment, this can be immediately detected by superficial examination of the playing board surface without the removal of any portions of the game cabinet." (Finding 11, R. 490-491.)

The Infringing Devices.

Six accused devices were before the District Court. The District Court and the unanimous Circuit Court of Appeals held each of the six to infringe the single claim 4 of the Nelson patent in suit, No. 2,109,678 issued March 1, 1938.

Photographs of the six infringing devices (Pl. Exh. 5, 6, 7, 8, 9 and 10), of Fig. 2 of the Nelson patent drawing (R. 548), and of the commercial form of the patented device (Pl. Exh. 11) are here reproduced. The patented structure which realized the commercial success found by the lower courts was identical with the form shown in the patent drawing. (R. 85-86.)

Each of the illustrated devices is a pin table target switch formed of a coil spring pendantly supported above the pin table upon a stationary standard, with a portion of the coil spring designed to strike a complementary conductor embedded in the table when the coil spring is struck at any point by a rolling ball to close an electrical circuit in which the coil spring is one of the conductors. The seven devices differ only in the specific form and method of supporting the complementary conductor, and the single question before this Court is whether the claim in suit is avoided by this formal alteration of the structure.

The contention of non-infringement in this case is based upon the fact that in two of the infringing devices, Pl. Exh. 5 and 7, Petitioners have substituted for the ferrule mounted in the pin table board a nail or pin which is embedded in the board, and have formed a ring or ferrule at the end of the resilient coil spring to surround the pin. This is a simple reversal. Response to the claim is evident. (See Plate III at page 14 herein.)

As to the next class of infringing devices, typified by Pl. Exh. 6, and 10, Petitioners have made the additional alteration that instead of embedding the pin directly in the pin table board, they have added to the board another lamination, which is rigidly anchored and attached to the board by means of the coil spring standard, and have embedded the pin in this upper lamination of the pin table board. This involved merely the addition of a completely passive element which became a part of the board. The attempted evasion is purely a literary device and a most transparent effort to retain all of the structural and functional characteristics of Nelson with a verbal distinction to fall back upon in case of attack. (See Plate IV at page 22 herein.)

In the last two devices to be considered, Pl. Exh. 8 and 9, the upper lamination of the pin table board has been removed and substituted therefor is an insulating core, which spaces the conductor from the resilient coil standard, and is anchored to the standard, which is embedded in the board, so that functionally the conductor member itself is embedded in the board. (See Plate V at page 24 herein.)

These three classes of infringing devices will be discussed in turn, and the question of file wrapper estoppel, upon which Petitioners based their prayer for the writs granted herein, will be treated in connection with the last two devices, the only devices to which any consideration of that question is pertinent.

Preliminary to a consideration of the several devices separately their structural and functional identity can be readily seen by an examination of the chart, Plate II, attached to the back cover of this brief, upon which the progressive modifications accomplished by Petitioners are illustrated by using parts of approximately the same size and proportion in order to facilitate comparison. Examination of the chart discloses that all Petitioners have done in shifting from one structure to the other is to shift the location of the conductor from a position in which it is obviously and unquestionably embedded in the table to a position in which it is embedded in the table by the device of anchoring it either to an additional passive lamination added to the table or the coil spring standard which is embedded in the table.

There Is No Evidence in This Record of the "Intervening Device" Repeatedly Referred to by Petitioners, Nor of the Other Facts Asserted by Petitioners of Alleged Intervening Rights.

In support of the argument that Respondent is estopped to read the claim in suit upon the infringing structures, Petitioners assert repeatedly that a device exemplified by Pl. Exh. 5 (one of the infringing structures) was "publicly marketed and advertised" by one of the Petitioners during the prosecution of the Nelson patent application. (Pet. Br. p. 3.)

This assertion has no foundation in the Record.

Petitioners base their assertion upon a photostatic reproduction (Pl. Exh. 23, R. 357) of an advertisement published by one of them in The Billboard magazine of February 27, 1937. This advertisement, with others, was offered to show that immediately upon the first public sale of pin tables equipped with the Nelson invention by Respondent's licensee in December, 1936, the entire industry

began not only to use this device, but also to feature it in extensive advertising, a singular tribute to this modest device. Not one of these advertisements illustrates any of the infringing forms now before this Court. Each advertisement which pictures the bumper spring target switch shows only the form shown in the Nelson patent (R. 353, 357, 361), that is, with the wire forming the coil spring extended into a pendant leg, or as the patent describes it, "a coil spring 18, which at its lower end terminates in a pendant spring leg 19." (R. 549, col. 2, ll. 20-21.)

It is exactly that form of device shown in the patent drawing (R. 548) that is pictured in the advertisement (R. 357) of Petitioner, Chicago Coin Machine Co. The only difference between the "Bumper Spring" shown in the advertisement and that shown in the Nelson patent drawing is in the bend where the coil spring joins the pendant leg, shown by Nelson as a right-angled bend and in the advertisement as a curved bend.

There is not one word of testimony in this record of any "intervening device" marketed during the prosecution of the Nelson patent application which differs in any other detail from the specific structure shown in the Nelson patent application.

Petitioners also say, "No claim of Nelson's application, as filed, covered the intervening device." (Pet. Br. p. 3.) **This is not true.** Assuming that the "intervening device", which exists only in Petitioners' insistent repetition of the assertion not supported by the record, was like Pl. Exh. 5, that device responded to Nelson's original claim 2, which reads:

"2. In a ball rolling game, a table, the combination with said table of a support thereon carrying a pendant coil spring including an extension, said spring constituting one conductor member of a switch disposed in an electric circuit, the other member of the switch comprising a conductor carried by the table and

adapted to be engaged by said extension, said members being normally gapped apart to hold the circuit open but adapted to close momentarily to establish the circuit when a ball bumps the spring." (R. 437-438.)

Petitioners also say, "Although the Patent Office had no way of knowing that Petitioners' intervening device had inspired this afterthought. * * *" etc. (Pet. Br. p. 18.) This statement lacks any support whatever in the record: (1) There is no evidence of any intervening device different from the specific form shown in the Nelson patent drawing; (2) there is no evidence of what prompted Nelson to describe the alternative form of his invention which is referred to.

Thus, Petitioners' Point II is based upon a synthetic controversy which does not arise upon the Record before this Court.

ARGUMENT:

Point I.

The Doctrine of Mechanical Equivalents Is a Necessary Doctrine of Patent Law Which This Court Has, Without Difficulty, Applied for More Than Eighty Years.

The question before this Court is not, as Petitioners state, "whether the scope of a patent is limited by the terms of its claims, or may be enlarged therebeyond by the so-called doctrine of mechanical equivalents," but is whether the claims of a patent may be evaded by the literary subterfuge of incorporating each element of a patented device in a structure with a formal variant of one element which may not precisely respond to the terminology of the patent claim if construed in the narrowest sense, but nevertheless accomplishes the same result with substantially the same means in substantially the same manner.

The doctrine of mechanical equivalents is an old one. In 1853, this Court, in *Winans v. Denmead*, 56 U. S. 330, returned for determination by a jury the question of whether a claim for a coal car with a body

"in the form of a frustrum of a cone, substantially as herein described, whereby the force exerted by the weight of the load presses equally in all directions, and does not change the form thereof, so that every part resists its equal proportion, and by which, also, the lower part is so reduced as to pass down within the truck frame and between the axles, to lower the center of gravity of the load without diminishing the capacity of the car as described."

was infringed by a similar car made in octagonal instead of circular form. The Court held that this was a question of what we now call equivalency, saying (pages 343-344):

"Patentees sometimes add to their claims an express declaration, to the effect that the claim extends to the

thing patented, however its form or proportions may be varied. But this is unnecessary. The law so interprets the claim without the addition of these words. The exclusive right to the thing patented is not secured, if the public are at liberty to make substantial copies of it, varying its form or proportions. And therefore, the patentee, having described his invention, and shown its principles, and claimed it in that form which most perfectly embodies it, is, in contemplation of law, deemed to claim every form in which his invention may be copied, unless he manifests an intention to disclaim some of those forms.

"Indeed, it is difficult to perceive how any other rule could be applied, practicably, to cases like this. How is a question of the infringement of this patent to be tried? It may safely be assumed, that neither the patentee nor any other constructor has made, or will make, a car exactly circular. In practice, deviations from a true circle will always occur. How near to a circle, then must a car be, in order to infringe? May it be slightly elliptical, or otherwise depart from a true circle, and if so, how far?

"In our judgment, the only answer that can be given to these questions is, that it must be so near to a true circle as substantially to embody the patentee's mode of operation, and thereby attain the same kind of result as was reached by his invention. It is not necessary that the defendant's cars should employ the plaintiff's invention to as good advantage as he employed it or that the result should be precisely the same in degree. It must be the same in kind, and effected by the employment of his mode of operation in substance. Whether, in point of fact, the defendant's cars did copy the plaintiff's invention, in the sense above explained, is a question for the jury, and the court below erred in not leaving that question to them upon the evidence in the case, which tended to prove the affirmative."

Petitioners prayer for abolition of the doctrine of equivalents joined with the concession that the doctrine "may have a proper place," is made without an attempted

statement of the doctrine. Once the limitations of the doctrine as announced by this Court are recognized any difficulty in its application disappears.

Even so simple a statement as was made by this Court in the early case of *Goodyear Dental Vulcanite Co. v. Davis*, 102 U. S. 222, where the Court held celluloid and vulcanized rubber not to be equivalents in the patented process for the manufacture of dental plates there considered, would answer most of the questions arising under the doctrine. The Court there said (page 230):

"This construction of the patent is confirmed by the avowed understanding of the patentee, expressed by him, or on his behalf, when his application for the original patent was pending. We do not mean to be understood as asserting that any correspondence between the applicant for a patent and the Commissioner of Patents can be allowed to enlarge, diminish or vary the language of a patent afterwards issued. Undoubtedly, a patent, like any other written instrument, is to be interpreted by its own terms. But when a patent bears on its face a particular construction, inasmuch as the specification and claim are in the words of the patentee, it is reasonable to hold that such a construction may be confirmed by what the patentee said when he was making his application. The understanding of a party to a contract has always been regarded as of some importance in its interpretation."*

Since the decision in *Winans v. Denmead*, 56 U. S. 330, the principle there announced has been reaffirmed in numerous opinions of this Court:

Sewall v. Jones, 91 U. S. 171.

Ives v. Hamilton, 92 U. S. 426.

Machine Co. v. Murphy, 97 U. S. 120, 125.

Imhaeuser v. Buerk, 101 U. S. 647.

* The contractual character of the patent grant is recognized in this opinion. The quoted passage with respect to the correspondence passing between the applicant and the Patent Office is peculiarly pertinent to this case, where the applicant anticipated and described one of the forms of his invention which Petitioners adopted in their effort to evade literal response to the patent claim.

- Duff v. Sterling Pump Co.*, 107 U. S. 636, 639.
Rowell v. Lindsay, 113 U. S. 97.
Morley Sewing Machine Co. v. Lancaster, 129 U. S. 263, 273.
Hoyt v. Horne, 145 U. S. 302.
Miller v. Eagle Mfg. Co., 151 U. S. 186, 207.
Deering v. Winona Harvester Works, 155 U. S. 286.
Westinghouse v. Boyden Power Brake Co., 170 U. S. 537, 575.
Hobbs v. Beach, 180 U. S. 383, 399.
Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U. S. 405, 414-415.
Abercrombie & Fitch Co. v. Baldwin, 245 U. S. 198, 207.
Hildreth v. Mastoras, 257 U. S. 27, 36.
Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U. S. 45, 63.
Sanitary Refrigerator Co. v. Winters, 280 U. S. 30, 41-42.
Smith v. Snow, 294 U. S. 1, 14-20.

The doctrine of equivalents is clear. No court has experienced any greater difficulty in its application than arises in the application of any legal doctrine. It requires no clarification.

There is reason for the doctrine of mechanical equivalents. The statute (Title 35, U. S. Code, Section 33) requires that a patentee who has invented a machine shall:

"Explain the principle thereof, and the *best mode* in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery."

All that the statute requires of the inventor is that in his specification he shall set forth the *best mode* of applying the principle of his invention. It does not require him to

anticipate and disclose every conceivable mechanical variation and formal rearrangement which may be made of the parts of his machine. It requires him to point out that "which he claims as his invention." It does not require him to present a claim for every conceivable variant form in which his invention may be embodied without affecting the principle of its structure and operation.

It is obviously impossible for an inventor to anticipate and make a claim for every alternative form in which his invention may be incorporated. The mere physical labor in the Patent Office imposed by any such doctrine would preclude it as a practical method of administration of the patent laws. The Patent Office has long asserted as a ground of rejection the undue multiplicity of claims.

These considerations make evident why the doctrine of mechanical equivalents is a necessary part of the doctrines of patent interpretation. Its propriety has long been recognized by this court, and has never been better stated than in the opinion of the Chief Justice in *Smith v. Snow*, 294 U. S. 1, 11.

"We may take it that, as the statute requires, the specifications just detailed show a way of using the inventor's method, and that he conceived that particular way described was the best one. But he is not confined to that particular mode of use since the claims of the patent, not its specifications, measure the invention. . . . While the claims of a patent may incorporate the specification or drawings by reference, . . . and thus limit the patent to the form described in the specifications, it is not necessary to embrace in the claims or describe in the specifications all possible forms in which the claimed principle may be reduced to practice. It is enough that the principle claimed is exemplified by a written description of it and of the manner of using it 'in such full, clear, concise, and exact terms' as will enable one 'skilled in the art to make, contrast, compound and use the same'."

Point II.

The History of the Prosecution of the Nelson Application Discloses That Only One of the Several Limitations Asserted by Petitioners as Having Been Demanded by the Examiner was Made, and the Record Contains No Evidence of the Intervening Rights Asserted.

Petitioners base their argument of non-infringement on two grounds:

(1) That several limitations of the claim in suit were entered by Nelson during the prosecution of his application, and

(2) That "not until after one of Petitioners had marketed the Exhibit 5 device did Nelson attempt to enlarge the monopoly sought." (Pet. Br., p. 14.)

Petitioners' argument that there is no infringement because of alleged limitations written into the claim, opens with a statement which completely distorts what occurred in the prosecution of the Nelson application. They say:

"Notwithstanding the prior Fisher patent (R. 552) and the Bolo device (R. 469), and notwithstanding that the claim in suit was allowed only after the Examiner had required that, in order to distinguish over the prior art:

"* * * the applicant's particular type of contact structure, comprising an extension on the coil spring adapted to engage an annular contact embedded in the table, must appear in the claims" (R. 449-450),

the courts below proceeded to hold infringement by devices which (like the prior art) had neither the **extension on the coil spring** nor the **annular** contact embedded in the table. The patent could not, at once, be both valid and infringed." (Emphasis added.) (Pet. Br., p. 7.)

As a matter of fact, Nelson never acceded to what Petitioners say "the Examiner had required." He never

adopted the limitations indicated in the words printed in bold face or anything similar thereto. What actually occurred is set forth in detail in the next section of this brief.

Petitioners' reiteration that Pl. Exh. 5 or a form of the Nelson invention exemplified thereby was on the market during the prosecution of the Nelson application is wholly unsupported by the Record. The facts are discussed in the final section of this Argument.

The Nelson Claim Reads Directly and Literally on Plaintiff's Exhibits 5 and 7, as Is Manifest Upon Inspection of Plate III.

In Reply Brief for Petitioners filed in answer to Brief in Opposition to Petition for Writs of Certiorari herein, Petitioners said (page 2):

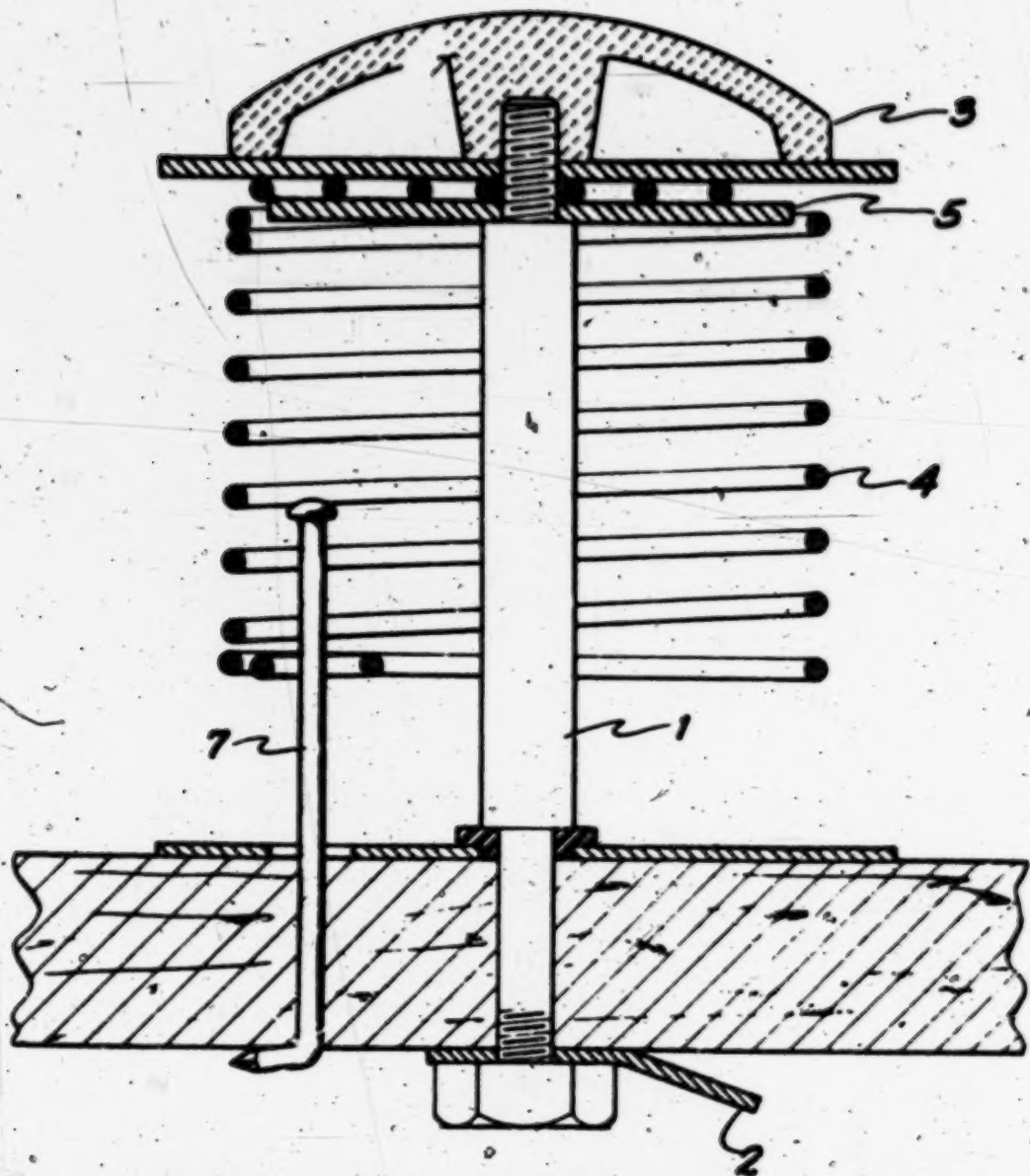
"3. A point of fact which was determined by the court below and which we do not controvert here is that the claim in suit, when construed by dictionary, does read literally upon the accused devices, Exhibits 5 and 7."

In Pl. Exh. 5 and 7 the Nelson structure is carefully copied except for a simple reversal of the form of the contact members by which the circuit is closed.

The Nelson patent shows the coil spring terminating in a pendant leg which moves within a complementary conductor in the form of a brass ring embedded in the board. Petitioners' structures, Pl. Exh. 5 and 7 show the coil spring terminating in a small ring which moves about a pin embedded in the board.

The possibility of this simple reversal to effect a formal evasion of the claim was anticipated by Nelson during the prosecution of his application before the Patent Office. In one of his communications to the Patent Office Nelson made this reply:

"Considering the art cited, it is too far to go to state that the specific leg 19 must be defined. Each of the



CHICAGO COIN MACH. CO. A
DEFENDANT'S EXH C1
PLAINTIFF'S EXH. 5

Claim 4

In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of

- (1) a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table
- (2) a lead for an electric circuit and
- (3) its upper end extending a substantial distance above the top surface of the table,
- (4) a coil spring surrounding the standard,
- (5) means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table,
- (6) said spring being in the aforementioned circuit and constituting a conductor, and
- (7) conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

PLATE-III

THE NELSON CLAIM READS DIRECTLY AND LITERALLY ON PLAINTIFF'S EXHIBITS 5 AND 7

Claim 4

In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of

- (1) a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table
- (2) a lead for an electric circuit and
- (3) its upper end extending a substantial distance above the top surface of the table,
- (4) a coil spring surrounding the standard,
- (5) means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table,
- (6) said spring being in the aforementioned circuit and constituting a conductor, and
- (7) conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

PLATE-III

THE NELSON CLAIM READS DIRECTLY AND LITERALLY ON PLAINTIFF'S EXHIBITS 5 AND 7

allowed claims can, it seems, be very simply avoided by taking the leg 19, separating it from the spring 18 and embedding it as a pin in the table so that the spring when flexed would contact the pin. In view of this it is very difficult to understand why a claim covering such a simple change, which is well within the scope of applicant's invention, should not be allowed. Claim 7 covers such alternative form and should be allowed as the art is not pertinent to the organization defined." (R. 450-451.)

Although previously (R. 449) the Examiner had demanded that

"In order to distinguish over the references therof, the applicant's particular type of contact structure, comprising **an extension on the coil spring** adapted to engage an **annular** contact embedded in the table, must appear in the claims. Such structure is absent from the above rejected claims 2 and 7." (Bold not in original.) (R. 449.)

Nelson refused to accede to this demand. He never acceded to the demand. He ignored each of the specific restrictions suggested by the Examiner and indicated by the emphasized portions of the foregoing passage.

Nelson not only resisted this demand but told the Examiner that to accede to it would offer an opportunity for evasion of the claim by " * * * taking the leg 19, separating it from the spring 18 and embedding it as a pin in the table. * * * " (R. 450-451.)

The Examiner did not repeat the demand. He called attention to the fact that the claim, in describing the coil spring spaced from the standard "**and the lower end of the coil spring terminating at a distance above the top surface of the table,**" was inoperative "as the coil spring could not terminate at a distance above the table and extend into a ferrule embedded therein." (R. 452.)

The Examiner was evidently thinking merely of the specific preferred form of the Nelson invention shown in the patent drawing and described in the specification. In that form the **body of the coil spring** does terminate at a distance above the top surface of the table, but the wire from which the coil spring is formed is continued to form the **"extension on the coil spring,"** (which the Examiner had demanded be specified in the claim and which Nelson had refused to specify), which does extend to the complementary conductor embedded in the board. That this was the Examiner's thought is apparent from the fact that he then complained that the alternative form mentioned by Nelson (R. 451) with the pin embedded in the table, was not shown in the drawing or specification. This complaint was groundless. The statute (Title 35, U. S. Code, § 33) requires the inventor of a machine to "explain the principle thereof and the *best mode* in which he has contemplated" applying the principle of his invention. This Court has succinctly stated the doctrine applicable in the passage from the opinion in *Smith v. Snow*, 294 U. S. 1, 11, quoted on page 13 of this Brief.

Whatever the merits of the Examiner's complaint, Nelson again refused compliance. He would not limit his claim to the specific form shown in the drawing. Instead of acceding to the Examiner in making the claim more specific, to clarify the reading of the claim, he struck the limitation complained of,

"and the lower end of the coil spring terminating at a distance above the top surface of the table"

from the claim and substituted the more general provision that the coil spring be carried from the upper portion of the standard

"above the table." (R. 453.)

In making this alteration in the claim Nelson frankly

told the Examiner that he was eliminating a limitation. He said:

"Counsel appreciates the Examiner's view respecting claims 7 and 8 and therefore the limitation to the coil spring having its lower end terminate above the table has been eliminated." (R. 453.)

The claim now contained no limitation as to where the coil spring or any part thereof might terminate. It might terminate anywhere with relation to the table. It had to be carried by the standard above the table.

There was thus no limitation sought in the claim during its prosecution with respect to the location of the terminus of the coil spring.

The only limitation wrought in the claim during its prosecution was the change with respect to the complementary conductor (in Nelson the brass ferrule embedded in the board and projecting slightly from it, and in Pl. Exh. 5 and 7 the pins embedded in the board and projecting substantially above the board to meet the coil spring). This had originally been described as

"other conductor means carried by the table at a point spaced from the standard * * *." (R. 445-446.)

Nelson changed this language in the first amendment of the claim to read

"conductor means *in said circuit and embedded in the table at a point spaced from the standard * * **" (Italics indicate new terminology.) (R. 445-446.)

It was at the time Nelson introduced this limitation that he refused to accede to the Examiner's demand for other limitations, such as specifically describing the "extension on the coil spring" and specifically designating the complementary conduct as "annular." (R. 449.) In submitting this amendment Nelson described the alternative form of his invention which he anticipated could be employed

"by taking the leg 19, separating it from the spring 18

and embedding it as a pin in the table. * * * (R. 450-451.)

The words "carried by" are far more comprehensive than the substituted language, "embedded in," but the concept of the conductor carried by the table in any manner whatsoever is also extremely broad. These coil springs are mounted at intervals upon a pin table and the claim in its original form would have read upon a structure in which the conductor might have been in the form of a large spider mounted upon the table with arms extending to form companion contacts to several coil springs. Almost any form of conductor which was mounted in any place or manner, permanently or movably, upon the table would have answered the language of the claim.

When the terminology of the claim was changed by means of the substitution of the words "embedded in" the terms accurately covered the preferred embodiment of the structure shown in the drawing. The terms met the dictionary definition that the conductor was "fixed firmly in a surrounding mass of some solid material." (The Oxford English Dictionary.) It was important that the conductor be fixed firmly in a surrounding mass of some solid material in order that the fixed relationship between that conductor and the coil spring would be insured. Vertical position of the conductor was unimportant except that it had to be within reach of the terminal of the coil spring so as to form a contact. The position that was important was its horizontal relation to the coil spring. The position of the coil spring was fixed by the position of the standard that was embedded in the pin table. With the conductor embedded in the table "at a point spaced from the standard" there was a fixed and unyielding relationship between the two. That was important to insure the results that Nelson anticipated for his invention and to meet the problem that he had found in the prior art.

That the vertical position of the conductor was not important except that it be within reach of the terminal of the coil spring is manifested both by Nelson's drawing (R. 548) showing his conductor protruding above the top surface of the table, and the anticipation, expressed in one of his communications to the Patent Office, of the simple reversal which is found in Pl. Exh. 5 and 7. He saw that if the pin were embedded in the table and extended upward to meet a terminal on the coil springs his structure would be present.

Petitioners have varied the elevation at which this conductor was mounted at various times, but they have never disturbed the one essential demand of the claim, that the conductor be "embedded" either directly or indirectly "in the table at a point spaced from the standard" so that the fixed relationship between that conductor and the standard which supported the coil spring would be maintained.

In Pl. Exh. 5 and 7 the pin is clearly a "conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit." The devices infringe.

The Cases Cited by Petitioners Are Not Pertinent to the Case Before the Court.

Petitioners cite the two cases of *Schriber-Schroth v. Cleveland Trust Company*, 305 U. S. 47, and 311 U. S. 211. These cases involved patents in which critical changes had been made during their prosecution. As this court said in the first case (305 U. S. 47 at 49):

"The principal question for decision is whether the court below rightly sustained the validity of two patents by including in the combination constituting the alleged invention of each an element which was not in terms described in one, and the description of which

in the other was added only by amendment to the application after it was filed."

The change there involved was the alteration of a patent for a piston "by substituting by way of amendment 'webs laterally flexible' for 'extremely rigid webs' in the description of his invention." (305 U. S. 56.) The language substituted contradicted and completely excluded that formerly in the patent. The Court held that the patent could not be validly so amended.

In the second case another piston patent was involved and it was sought to construe the claims in suit to correspond in scope with previously cancelled claims, and by this construction to revive for the claim in litigation the critical element of novelty found only in the cancelled claim. This court held this could not be done under the familiar doctrine of file wrapper estoppel.

Obviously, these cases in no way conflict with the decision of the Circuit Court of Appeals in construing the terms of the patent according to their dictionary definitions, where the specification remained unchanged and the claims at all times were completely supported by the original disclosure.

Petitioners also cite the case of *Weber v. Freeman Electric Company*, 256 U. S. 668, in which during the prosecution of the patent application the applicant excluded the concept of a rotary relation between two parts of a lamp socket and in the suit upon the patent asserted his claim against a device requiring rotative movement to operate it. The file wrapper history presented a situation much like that found in *Goodyear Dental Vulcanite Co. v. Davis*, 102 U. S. 222.

Plaintiff's Exhibits 6 and 10 Differ from Plaintiff's Exhibits 5 and 7 Only in the Fact That Petitioners Have Cut a Large Hole in the Pin Table at the Point Where the Conductor Is Normally Embedded, and Have Covered This Hole With an Additional Lamination of Material Which Is Secured to the Pin Table by the Standard, and Have Embedded the Conductors in This Top Lamination.

As is readily apparent from an examination of the accompanying Plate IV, the second class of infringing devices also employs a pin embedded in the board and an annular termination of the coil spring surrounding the pin to form the switch. Unlike the devices previously discussed, Pl. Exh. 5 and 7, the two devices here shown include the additional modification that the pin is embedded in a plate which is in turn secured to the board in such a manner that it forms merely an upper lamination of the board. The metal plate serves no function whatsoever except to support the pin where, in the previous devices it was driven directly into the board.

Can it be seriously contended that this simple device by which the pin table is transformed from a single solid board into a structure composed of a solid board with an overlying metal lamination, avoids the terms of Nelson claim 4? The question answers itself.

The courts have uniformly, when called upon to consider the question of the separation of one unit or element of a structure into two parts which perform the same function in identically the same manner, held that infringement is not avoided by so obvious and transparent a subterfuge.

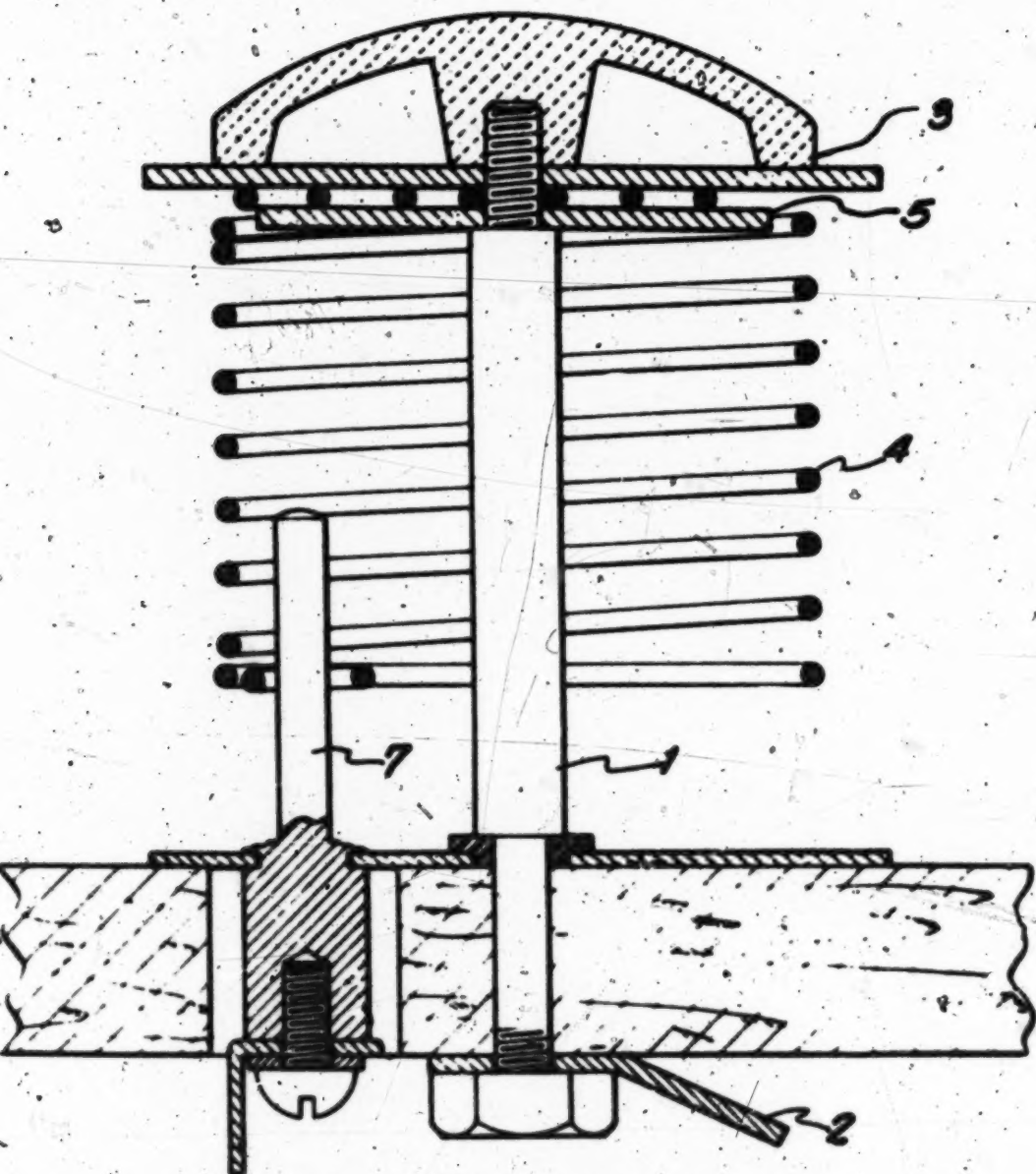
The expedient of making a structural element in laminations to effect a literal evasion of a claim is an old device that has been repeatedly rejected by the courts. In *Highway Appliances Co. v. American Concrete Expansion Joint Co.*, 93 F. (2d) 113, the claims were for an expansion joint

and specified among the elements "side walls." The infringing device had side walls but made these in two laminations, the outer lamination which operated in the manner of the side walls of the original patent and the inner lamination which became inactive after installation. The Seventh Circuit Court of Appeals held this to be a mere colorable departure from the terms of the claim and did not avoid infringement.

In *Line Material Co. v. Brady Electric Manufacturing Co.*, 7 F. (2d) 48, 50-51, the Second Circuit Court of Appeals said:

"Infringement is not avoided by making an element of two separate pieces, rather than a single piece, where the two separate pieces perform the same function as a single device. . . . The appellant's device has all the elements of the claim of the patent in suit. The minor changes in the form of the clevis and the plate are fully within their scope, having taken all the essential elements operating in the same way for the special purpose to accomplish the same result and infringement is clear."

That this rearrangement of the parts of Petitioners' bumper spring to embed the conductor in the added lamination of the table, instead of embedding the conductor directly in the table, does not avoid infringement is the necessary effect of the many decisions of this court dealing with the question of mechanical equivalents.



CHICAGO COIN MACH. CO. B
DEFENDANT'S EXH. C 2
PLAINTIFF'S EXH. 6

Claim 4

In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of

- (1) a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table
- (2) a lead for an electric circuit and
- (3) its upper end extending a substantial distance above the top surface of the table,
- (4) a coil spring surrounding the standard,
- (5) means carrying said spring pendently from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table,
- (6) said spring being in the aforementioned circuit and constituting a conductor, and
- (7) conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

PLATE-IV

BY ADDING A PASSIVE PLATE TO THE BOARD IN PLAINTIFF'S EXHIBITS 6 AND 10 DEFENDANTS HAVE MERELY CONSTRUCTED A LAMINATED BOARD IN AN ASTUTE EFFORT TO EVADE THE LITERAL TERMS OF THE CLAIM WITHOUT IMPAIRING THE STRUCTURE OR FUNCTION OF THE NELSON INVENTION

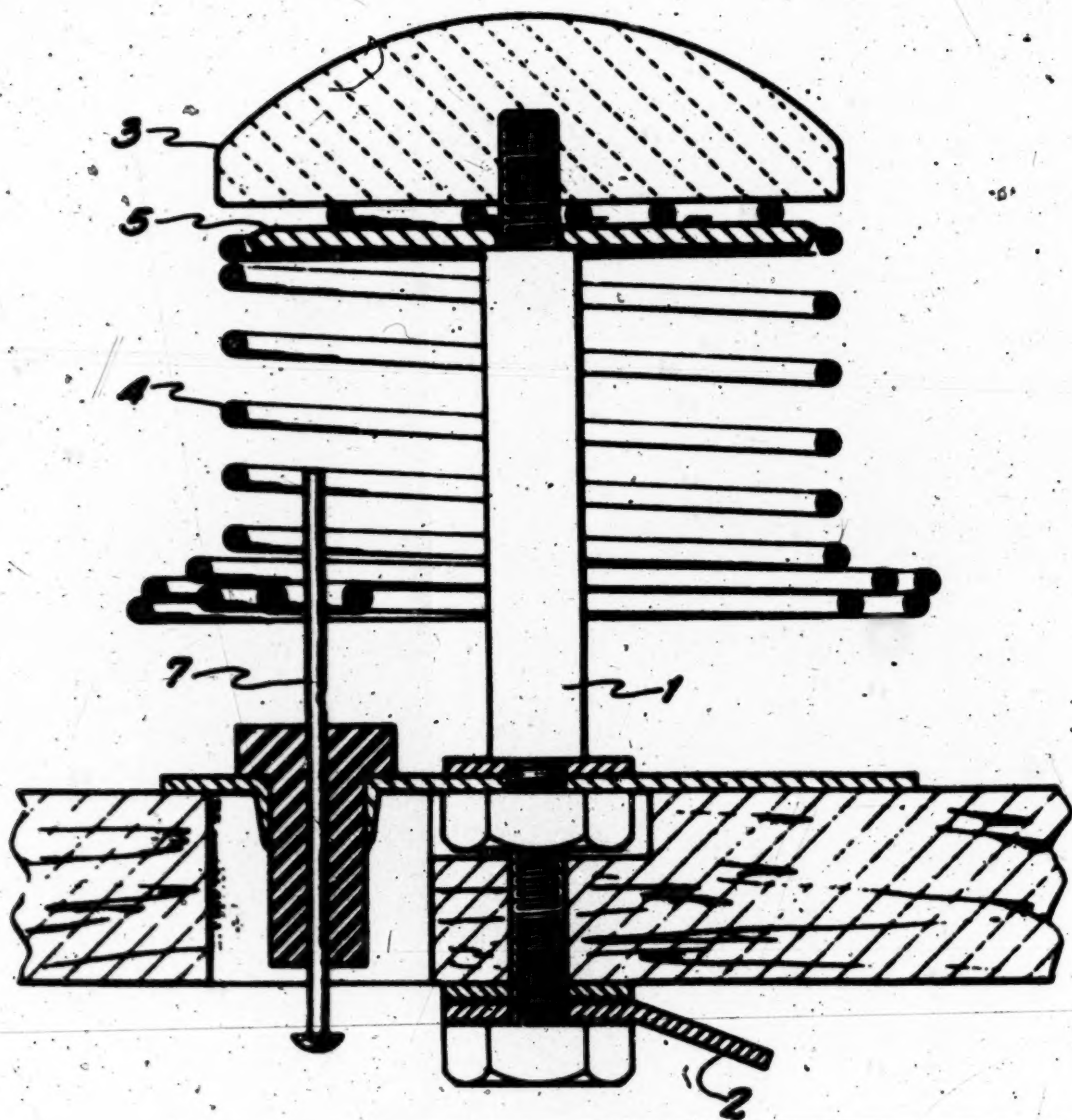
Claim 4

In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of

- (1) a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table
- (2) a lead for an electric circuit and
- (3) its upper end extending a substantial distance above the top surface of the table,
- (4) a coil spring surrounding the standard,
- (5) means carrying said spring pendantsly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table,
- (6) said spring being in the aforementioned circuit and constituting a conductor, and
- (7) conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

PLATE-IV

BY ADDING A PASSIVE PLATE TO THE BOARD IN PLAINTIFF'S EXHIBITS 6 AND 10 DEFENDANTS HAVE MERELY CONSTRUCTED A LAMINATED BOARD IN AN ASTUTE EFFORT TO EVADE THE LITERAL TERMS OF THE CLAIM WITHOUT IMPAIRING THE STRUCTURE OR FUNCTION OF THE NELSON INVENTION



GENCO INC.
DEFENDANT'S EXH. G1
PLAINTIFF'S EXH.10

Plaintiff's Exhibits 8 and 9 Exemplify Another Variation in the Nelson Structure, in Which, in Lieu of Embedding the Conductor Element Directly into the Pin Table or into an Added Lamination of the Pin Table, the Conductor Is Secured to a Passive Core of Plastic Material, Which Is Secured to the Standard and Thus Indirectly Embedded in the Pin Table.

In all the structures held to infringe the Nelson patent, the coil spring standard is embedded in the pin table board. In Pl. Exh. 5 and 7, the conductor pin is separately embedded. In Pl. Exh. 6 and 10, the board is constructed with an additional lamination secured to the board and for all purposes made integral therewith by means of the embedded standard. In Pl. Exh. 8 and 9 this lamination is removed and there is substituted therefor a plastic core which, although not horizontally spread out to form a lamination of the pin table, is attached to the pin table equally securely by means of the standard, which is embedded in the board. In other words, Petitioners embed the complementary conductor in the board by the simple indirection of securing the conductor to the standard, spaced therefrom by the insulating core, and embedding the standard in the table.

Because of the variation of the proportions and dimensions of the various passive elements employed by Petitioners in the later devices, the attempted evasion is not as transparent as when the devices are represented by parts brought more nearly into proportion, as is done in the chart, Plate II, secured to the back cover of this brief.

The devices exhibited on Plate V, Pl. Exh. 8 and 9, are merely mechanical equivalents of the Nelson structure as shown in the drawings of the Nelson patent. Petitioners deny that claim 4 of the Nelson patent will reach mechanical equivalence because of a change in its terminology during the prosecution of the Nelson application.

This argument is completely answered by the section of this brief dealing with the prosecution of the Nelson application.

The equivalency of the complementary conductor found in Pl. Exh. 8 and 9 with the specific form shown in the Nelson patent drawing is at once apparent. The variant adopted by Petitioners performs every function of that specific form in the same manner as that specific form. The means employed are substantially the same.

Petitioners' Assertion That "The File Wrapper History Shows the Attempt to Dominate the Intervening Device" Is Without Support in the Record, as There Is Absolutely No Proof of Any Intervening Device.

Throughout Petitioners' brief mention is repeatedly made of an alleged "intervening device." It is referred to a score of times. Petitioners say:

"On February 27, 1937 (after the Nelson application was filed), one of Petitioners publicly marketed and advertised (Exhibit 23, R. 357) a device (exemplified by Exhibit 5) of different construction from that disclosed in the application. It differs from the device disclosed in the patent in suit essentially in that the spring has no leg, and the stationary conductor is not a ferrule embedded in the table, but is a nail driven into the table. In that intervening device the lower end of the coil spring *terminated at a distance above the top surface of the table.*" (Pet. Br. p. 3.)

What is the device shown in Pl. Exhibit 23, R. 357?

The photograph is clear. It shows a "Bumper Spring" in which the wire forming the coil spring, upon completion of the lowest turn, is bent upwardly and around before descending as a pendant leg. This type of bend for a spring steel wire avoids the use of a right-angle bend, such as is shown in the Nelson patent drawing, and reduces the possibility of fracture at the bend.

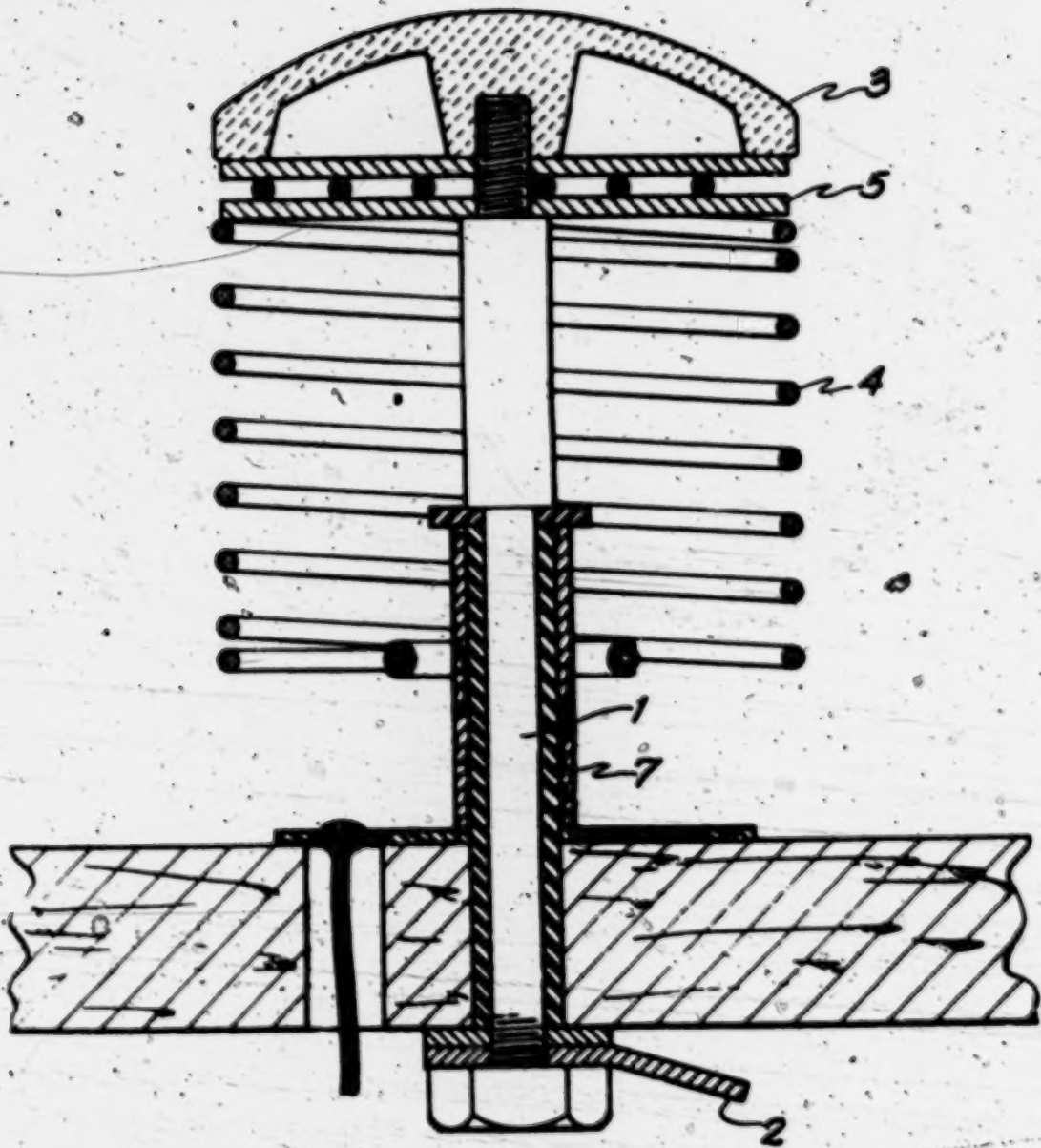


EXHIBIT SUPPLY CO. B
DEFENDANT'S EXH. E2
PLAINTIFF'S EXH. 8

Claim 4

In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of

- (1) a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table
- (2) a lead for an electric circuit and
- (3) its upper end extending a substantial distance above the top surface of the table,
- (4) a coil spring surrounding the standard,
- (5) means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table,
- (6) said spring being in the aforementioned circuit and constituting a conductor, and
- (7) conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

PLATE-V

IN PLAINTIFF'S EXHIBITS 8 AND 9 DEFENDANTS HAVE MERELY ADDED A PASSIVE SLEEVE TO ENABLE THE CONDUCTOR TO BE ANCHORED TO THE STANDARD AND SO EMBEDDED IN THE BOARD

Claim 4

In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of

- (1) a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table
- (2) a lead for an electric circuit, and
- (3) its upper end extending a substantial distance above the top surface of the table,
- (4) a coil spring surrounding the standard,
- (5) means carrying said spring pendantly from the upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table,
- (6) said spring being in the aforementioned circuit and constituting a conductor, and
- (7) conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

PLATE-V

***IN PLAINTIFF'S EXHIBITS 8 AND 9 DEFENDANTS
HAVE MERELY ADDED A PASSIVE SLEEVE TO
ENABLE THE CONDUCTOR TO BE ANCHORED TO
THE STANDARD AND SO EMBEDDED IN THE BOARD***

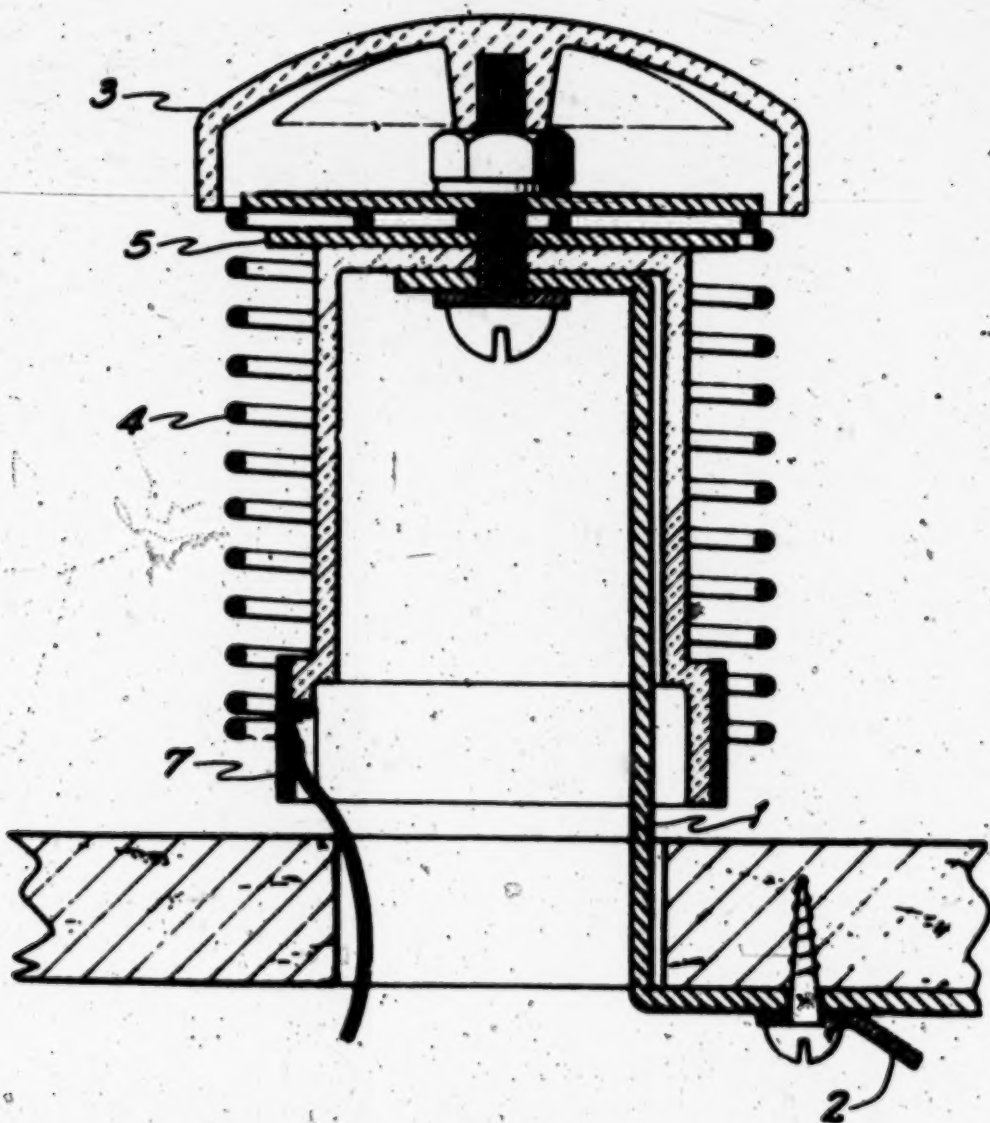


EXHIBIT SUPPLY Co. C

DEFENDANT'S EXH. E 3

PLAINTIFF'S EXH. 9

This difference in the manner in which the coil spring is bent to form the pendant leg is the only difference between the device "publicly marketed and advertised" on February 27, 1937, by one of Petitioners, and the device shown in the drawings of the Nelson patent and widely commercialized by Respondent's licensee at that time.

The photograph (Pl. Exh. 23) referred to shows nothing of the complementary conductor to be engaged by the pendant leg. (R. 357.)

Nowhere in the Record is there any testimony or other evidence of the character of this device which warrants the assertion of Petitioners that it is of the type exemplified by Pl. Exh. 5, or that "the lower end of the coil spring terminated at a distance above the top surface of the table."

The only testimony in the Record with respect to Pl. Exh. 23 is the following passage from the testimony of George D. Moloney:

"Mr. Ooms: Q. 68. I now call your attention to an advertisement appearing on page 93 of the February 27, 1937 issue of The Billboard, an advertisement bearing the name 'Chicago Coin Corp.', and ask you to point out anything that is particularly significant in that advertisement, in connection with this controversy.

"A: They also feature the Bumper spring, stating that their new game called Bump-A-Lite—I beg your pardon—the new game is 'Home Run', and they feature a cut of the Bumper spring as used on our 'Bumper' game.

"Mr. Ooms: I would like to have that advertisement appearing on page 93 of The Billboard of February 27, 1937, marked as Plaintiff's Exhibit 23.

"(Whereupon page 93 of The Billboard issue of February 27, 1937, was marked Plaintiff's Exhibit No. 23.) (R. 91.)

Another advertisement of the same machine appeared in the Billboard of March 20, 1937, reproducing the same

cut of the "Bumper Spring." It was introduced as Pl. Exh. 24 and is reproduced. (R. 361.) Of this the witness Moloney said:

"Q. 71. Will you point out the third ad in that issue that I have called attention to?

"A. 'Home Run' by Chicago Coin Corporation seems to be a duplicate of the cut that we had in other issues of The Billboard magazine picturing the Bumper spring.

"Q. 72. Does that have a separate cut of the Bumper spring?

"A. It has a separate cut of the Bumper spring." (R. 92.)

Manifestly there is nothing in this testimony that disturbs the clear showing in Pl. Exh. 23 (R. 357) that the "Bumper Spring" there shown is one with a pendant leg identical with Nelson except for the curved bend where the pendant leg joins the coil spring.

There is no question in this case arising out of intervening rights.

Conclusion.

The writs of certiorari herein were granted upon a petition for rehearing representing that this case was substantially identical with the case of *Wuncie Gear Works, Inc. v. Outboard Marine and Manufacturing Co., et al.* No. 323 in this term. That case presents a direct issue in the record of the amendment of a patent application years after its filing to incorporate features of novelty not found in the application as filed and also after long and wide commercial use of the novel features, a true case of rights intervening during the pendency of the patent application.

This case presents only the single issue as to whether or not under the application of the doctrine of equivalents as applied by this court for more than eighty years there

is infringement of the single claim in suit. It is submitted that that infringement is manifest.

The judgment of the Seventh Circuit Court of Appeals should be affirmed.

Respectfully submitted,

CASPER W. OOMS,
Attorney for Respondent.

JOHN A. RUSSELL,
Of Counsel.

January 2, 1942.

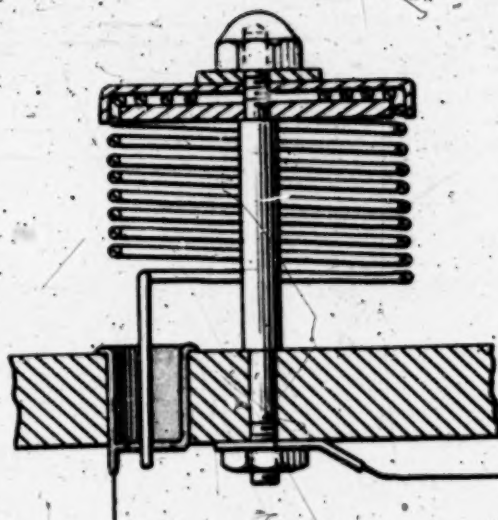


FIG. 1
THE NELSON DRAWING

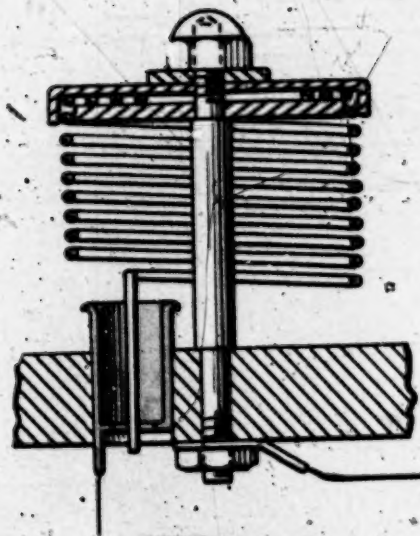


FIG. 2
THE NELSON STRUCTURE WITH
CONDUCTOR RAISED AND MOVED
INWARDLY

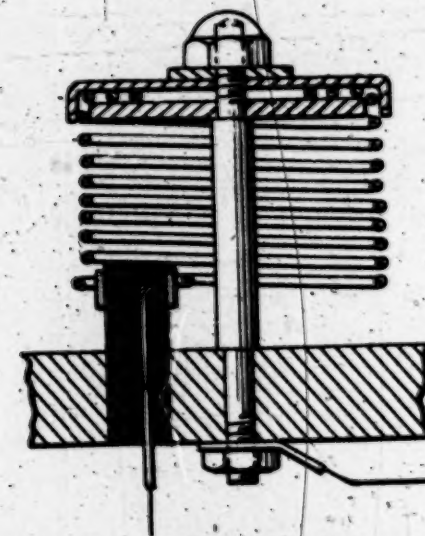


FIG. 3
INTRODUCING THE PASSIVE
ELEMENT EMBEDDED IN THE
TABLE

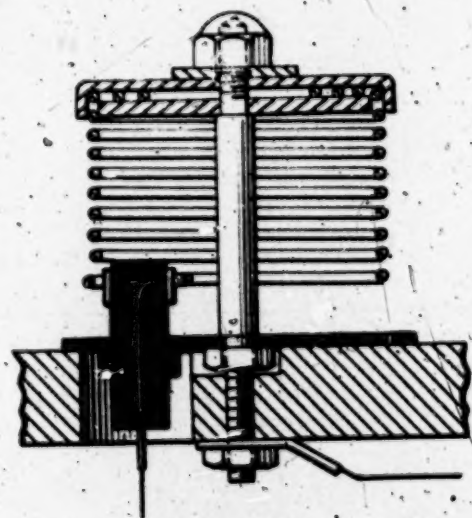


FIG. 4
INTRODUCING THE LAMINATED
TABLE WITH THE CONDUCTOR
EMBEDDED THEREIN

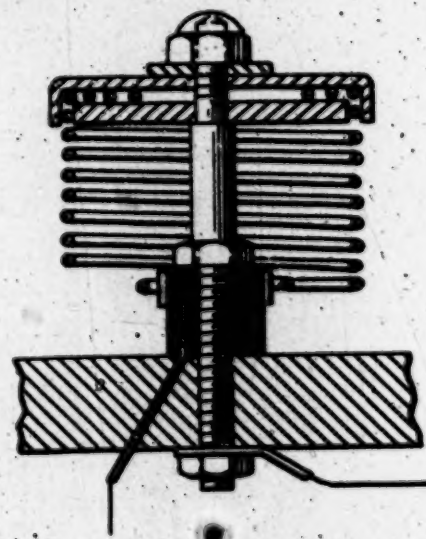


FIG. 5
ANCHORING THE PASSIVE ELEMENT TO
THE STANDARD EMBEDDED IN THE TABLE

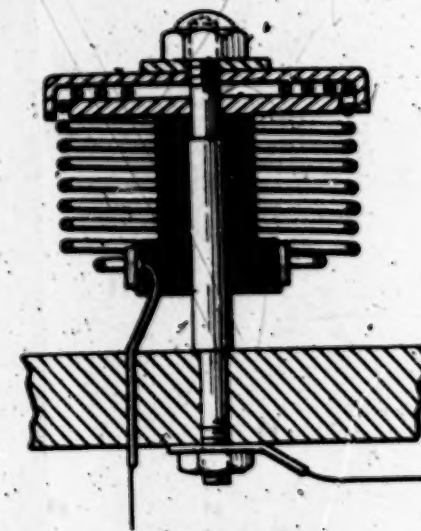


FIG. 6
INVERTING THE ANCHORED
PASSIVE ELEMENT

FILE COPY

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OCT 30 1941

CHARLES ELMORE 9200
CLERK

IN THE
Supreme Court of the United States

OCTOBER TERM, A. D. 1941

EXHIBIT SUPPLY COMPANY,

Petitioner,

vs.

ACE PATENTS CORPORATION,

Respondent.

No. 154

GENCO, INC.,

Petitioner,

vs.

ACE PATENTS CORPORATION,

Respondent

No. 155

CHICAGO COIN MACHINE COMPANY,

Petitioner,

vs.

ACE PATENTS CORPORATION,

Respondent.

No. 156

PETITION FOR REHEARING

RE PETITION FOR WRITS OF CERTIORARI TO THE UNITED
STATES CIRCUIT COURT OF APPEALS FOR THE SEVENTH
CIRCUIT.

CLARENCE E. THREEDY,

JOHN H. SUTHERLAND,

Counsel for Petitioners.

IN THE
Supreme Court of the United States

OCTOBER TERM, A. D. 1941

EXHIBIT SUPPLY COMPANY,
Petitioner,

vs.

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Respondent.

No. 154

GENCO, INC.,

vs.

ACE PATENTS CORPORATION,
Respondent

Petitioner,

No. 155

CHICAGO COIN MACHINE COMPANY,
Petitioner,

vs.

ACE PATENTS CORPORATION,
Respondent.

No. 156

PETITION FOR REHEARING

RE PETITION FOR WRITS OF CERTIORARI TO THE UNITED
STATES CIRCUIT COURT OF APPEALS FOR THE SEVENTH
CIRCUIT.

*To the Honorable the Chief Justice of the United States
and the Associate Justices of the Supreme Court of
the United States:*

The granting of certiorari in *Muncie Gear Works, Inc.,
et al. v. Outboard, Marine & Manufacturing Co., et al.*,
No. 323, on the same day as the denial in these cases,

impels us to point out that every reason advanced for the granting of the Writ in No. 323, also exists in these cases.

I.

The Industry Dominated by the Patent in Suit Is Located Exclusively Within the Seventh Circuit, and Hence It Is More Urgent That Certiorari Be Granted in This Case Than in Other Cases Where Less Complete Concentration of Industry Has Influenced the Court.

In *Schriber-Schroth* | *Co. v. Cleveland Trust Co.*, 305 U. S. 47, this Court indicated that it was influenced, in granting certiorari, by the concentration (95%) of the involved industry in one circuit. A showing to this effect was also made in the Muncie case, *supra*, and may have influenced the Court. In view of these facts, we append hereto affidavits establishing the existence of a complete and absolute case of concentration, as regards the industry involved here, in the Seventh Circuit. As shown in the annexed affidavits, there are, in the United States, ten manufacturers of devices of the character involved here, and all ten of these are located in the Northern District of Illinois. No case, in which concentration of industry has been urged upon this Court as a reason for granting certiorari, has involved such a situation where the affected industry, including all parties to the suit as well as third parties, was located 100% in any Circuit.

If concentration of the industry, with attendant improbability of litigation elsewhere, has influenced this Court in granting certiorari in the Muncie and Schriber-Schroth cases, *supra*, it must, with stronger reason, influence the Court in this case.

While Petitioners recognize that, as a general rule, this Court should not be burdened with patent cases save where there is conflict between decisions of different circuits, in a case such as this where the decision of one circuit affects the industry, 100%, the Court is justified in relaxing that general rule. In such a situation, it is evident that this Court can never have an opportunity to resolve a conflict between decisions of different Circuit Courts of Appeals unless the patentee, in a lapse of sagacity, chooses to sue a user in another Circuit. Hence, the general rule of this Court, not to take patent cases save to resolve such a conflict, is unduly harsh upon the manufacturing public, and unjustly favorable to a patentee. Such a rule leaves it wholly within the control of the patentee to say whether this Court shall ever pass upon his patent.

II

The Muncie Case, Supra, Presents An Important Question of Law Relating to the Broadening of a Patent Application, After Filing, to Embrace a Device Then Marketed by Petitioner. The Same Question Is Presented by Petition in These Cases, So That the Two Cases Lend Themselves to Convenient Concurrent Consideration.

The Muncie case, No. 323, involves a situation where the application for patent, as filed, did not describe, or attempt to cover, devices of the character now held to infringe; but, after the accused device was on the market, the application was amended to cover it. (See Paragraphs 5, 6 and 7, Page 4; Paragraph 2, Page 7; Paragraph 3, Page 12, and Point II, Pages 14, 15 and 16 of the Petition in No. 323.)

Precisely the same situation is involved here. (See Petition, Page 2, lines 13 *et seq.*; Page 4, Paragraph (a);

Page 4, "Questions Presented" 3; Pages 6-7, Reason II; Pages 15-16, Point II.) While the Petition in these cases also presented other questions, it is noteworthy that this one question, if decided according to Petitioners' views, will accomplish complete reversal of the judgment below.

Where two cases thus present related questions of law, this Court has frequently heard and determined them together. (*Fashion Originators Guild v. Federal Trade Commission*, 312 U. S. 457, and *Millinery Creator's Guild v. Federal Trade Commission*, 312 U. S. 469; *Nelson v. Sears, Roebuck & Co.* and *Nelson v. Montgomery Ward & Co.*, Nos. 255 and 256, 312 U. S. 359 and 373; *Crown Cork & Seal Co. v. Ferdinand Gutum Co.*, 304 U. S. 159, and *General Talking Pictures Corp. v. Western Electric Company*, 304 U. S. 175; *Triplett, et al. v. Lowell, et al.*, 297 U. S. 638 and *Mantle Lamp Co. of America v. Aluminum Products Co.*, 297 U. S. 638.) In such circumstances, certiorari has been granted in the absence of conflict between the decisions, and where respective cases came from the same lower court, as here.

Neither in this case, nor in the Muncie case, did the decision of the lower court (the Circuit Court of Appeals for the Seventh Circuit in both instances) treat the question of broadening after intervening rights had arisen.

* Illustrative cases in which this was done at the last term of Court are:

Pheips Dodge Corporation v. National Labor Relations Board, and *Continental Oil Co. v. National Labor Relations Board*, Nos. 387 and 413; *Consolidated Rock Products Co. v. Du Bois*, and *Badgley et al. v. Du Bois*, Nos. 400 and 444; *Guggenheim v. Rusquin*, and *Powers v. Commissioner*, Nos. 92 and 486, respectively; *Helvering v. Oregon Mutual Life Insurance Co.* and *Helvering v. Pan-American Life Insurance Co.*, Nos. 564 and 264, respectively; *Helvering v. Janney and Gaines et al. v. Helvering*, Nos. 36 and 113.

The failure of the lower court to apply the doctrine of this Court's decisions (*Schriber-Schroth Co. v. Cleveland Trust Co.*, 305 U. S. 47, 57; *Mackay Radio & Telegraph Co. v. Radio Corporation of America*, 306 U. S. 86, 101; *Chicago and N. W. R. Co. v. Sayles*, 97 U. S. 554, 563; *Powers-Kennedy Contracting Corp. v. Concrete Mixing & Conveying Co.*, 282 U. S. 175, 185) is as manifest in this case as in the Muncie case.

The cases, therefore, lend themselves to concurrent determination by this Court and, unless certiorari is granted in this case, the slight factual differences between them may hereafter be regarded as distinguishing, and result in erroneous interpretation of this Court's decision in the Muncie case.

The only differences in the pertinent factual situation between this case and the Muncie case are two:

FIRST: The description of the intervening device, the subject matter of the belatedly broadened claims, appeared in the original Remarks of an amendment in this case; while it appeared as a formal amendment to the Specification in the Muncie case. If it is illegal to do a thing formally, it is inconceivable that the same result may be rendered legal by doing it informally.

SECOND: The period during which the intervening device was on the market, before the broadening amendment, was two years in the Muncie case, but five months here. This is merely a difference in degree, which should not affect the applicability of the principle that one may not change his pending application for the purpose of appropriating and claiming what has been developed and commercialized by others in the interim.

CONCLUSION.

Wherefore Petitioners pray that the Petition for Writs of Certiorari be reconsidered and granted.

Respectfully submitted,

EXHIBIT SUPPLY COMPANY,
GENCO, INC.,
CHICAGO COIN MACHINE COMPANY,

.....
By CLARENCE E. THREEDY,

.....
JOHN H. SUTHERLAND,
Counsel for Petitioners,

October 29, 1941.

I hereby certify that the foregoing Petition for Re-hearing is filed in good faith and not for the purpose of delay.

.....

AFFIDAVIT IN SUPPORT OF PETITION FOR WRIT OF CERTIORARI.

STATE OF ILLINOIS, } ss.
COUNTY OF COOK.

JOHN CHREST, being duly sworn, deposes and says that he is of legal age, a resident and citizen of the City of Chicago, County and State aforesaid, and is secretary of the Coin Machine Industries, Inc., having its principal office in the City of Chicago, County and State aforesaid, an association composed of members whose business is that of manufacturing and selling coin-operated devices;

That he knows the names and addresses of all of the manufacturers of devices of the character involved in this litigation; that the entire industry is confined to ten manufacturers and is concentrated in the State of Illinois within the Seventh Judicial Circuit of the United States; that during the latter part of the year of 1936 and the major portion of the year of 1937 the Pacent Novelty Manufacturing Company of Utica, New York, was engaged in the manufacture of such devices; that said company during the year of 1937 became bankrupt and discontinued business including the manufacture of said devices.

.....
JOHN CHREST.

SWORN TO and subscribed before me this 24th day of October, 1941.

.....
Notary Public.

AFFIDAVIT IN SUPPORT OF PETITION FOR WRIT OF CERTIORARI.

STATE OF ILLINOIS, }
 COUNTY OF COOK. } ss.

HERBERT L. OETTINGER, being duly sworn, deposes and says that he is of legal age, a resident and citizen of the City of Chicago, County and State aforesaid, and is treasurer of the petitioner company, The Exhibit Supply Co.;

That he knows the names and addresses of all of the manufacturers of devices of the character involved in this litigation, sold in competition with the products of his company; that the entire industry is concentrated in the State of Illinois within the Seventh Judicial Circuit of the United States; that during the latter part of the year of 1936 and the major portion of the year of 1937 the Pacent Novelty Manufacturing Company of Utica, New York, was engaged in the manufacture of such devices in competition with the products of his company; that the said Pacent Novelty Manufacturing Company during the year of 1927 became bankrupt and discontinued business including the manufacture of said devices.

.....
 HERBERT L. OETTINGER.

Sworn to and subscribed before me this 24th day of October, 1941.

.....
 Notary Public.

AFFIDAVIT IN SUPPORT OF PETITION FOR WRIT OF CERTIORARI.

STATE OF ILLINOIS, }
COUNTY OF COOK. } ss.

SAMUEL WOLBERG, being duly sworn, deposes and says that he is of legal age, a resident and citizen of the City of Chicago, County and State aforesaid, and is president of the petitioner company, Chicago Coin Machine Mfg. Co.;

That he knows the names and addresses of all of the manufacturers of devices of the character involved in this litigation, sold in competition with the products of his company; that the entire industry is concentrated in the State of Illinois within the Seventh Judicial Circuit of the United States; that during the latter part of the year of 1936 and the major portion of the year of 1937 the Pacent Novelty Manufacturing Company of Utica, New York, was engaged in the manufacture of such devices in competition with the products of his company; that the said Pacent Novelty Manufacturing Company during the year of 1937 became bankrupt and discontinued business including the manufacture of said devices.

.....
SAMUEL WOLBERG.

SWORN TO and subscribed before me this 24th day of October, 1941.

.....
Notary Public.

AFFIDAVIT IN SUPPORT OF PETITION FOR WRIT OF CERTIORARI.

STATE OF ILLINOIS, } ss.
COUNTY OF COOK. }

LOUIS W. GENSBURG, being duly sworn, deposes and says that he is of legal age, a resident and citizen of the City of Chicago, County and State aforesaid, and is president of the petitioner company, Genco, Inc.;

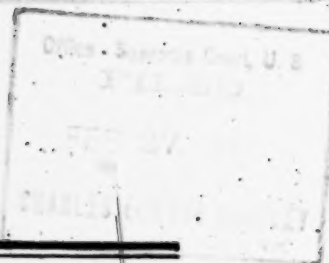
That he knows the names and addresses of all of the manufacturers of devices of the character involved in this litigation, sold in competition with the products of his company: that the entire industry is concentrated in the State of Illinois within the Seventh Judicial Circuit of the United States; that during the latter part of the year of 1936 and the major portion of the year of 1937 the Pacent Novelty Manufacturing Company of Utica, New York, was engaged in the manufacture of such devices in competition with the products of his company; that the said Pacent Novelty Manufacturing Company during the year of 1937 became bankrupt and discontinued business including the manufacture of said devices.

.....
LOUIS W. GENSBURG

Sworn to and subscribed before me this 24th day of October, 1941.

.....
Notary Public.

FILE COPY



IN THE
Supreme Court of the United States

OCTOBER TERM, A. D. 1941.

No. 154. EXHIBIT SUPPLY COMPANY, *Petitioner,*
vs.
ACE PATENTS CORPORATION, *Respondent.*

No. 155. GENCO., INC., *Petitioner,*
vs.
ACE PATENTS CORPORATION, *Respondent.*

No. 156. CHICAGO COIN MACHINE COMPANY, *Petitioner,*
vs.
ACE PATENTS CORPORATION, *Respondent.*

RESPONDENT'S PETITION FOR REHEARING.

CASPER W. OOMS,
Attorney for Respondent.
JOHN A. RUSSELL,
Of Counsel.

IN THE
Supreme Court of the United States

OCTOBER TERM, A. D. 1941.

No. 154. EXHIBIT SUPPLY COMPANY, *Petitioner,*
vs.
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No. 156. CHICAGO COIN MACHINE COMPANY, *Petitioner,*
vs.
ACE PATENTS CORPORATION, *Respondent.*

RESPONDENT'S PETITION FOR REHEARING.

*To the Honorable the Chief Justice of the United States
and the Associate Justices of the Supreme Court of the
United States:*

This Court, in its opinion of February 2, 1942, in these cases, held that claim 4 of the Nelson patent in suit, because of an amendment made during the prosecution of the patent claim, was limited to devices in which the complementary conductor means was "embedded in the table". The Court

then held that the devices exemplified in Plaintiff's Exhibits 5 and 7 infringed the claim and the other four accused devices did not. ..

This conclusion was apparently based upon the misapprehension expressed by the Court that, "Respondent concedes that the conductor means in the four devices are not literally 'embedded in the table' * * *". (Opinion, p. 8.) Respondent did make this concession with respect to two of the devices held not to infringe, i. e., Plaintiff's Exhibits 8 and 9.

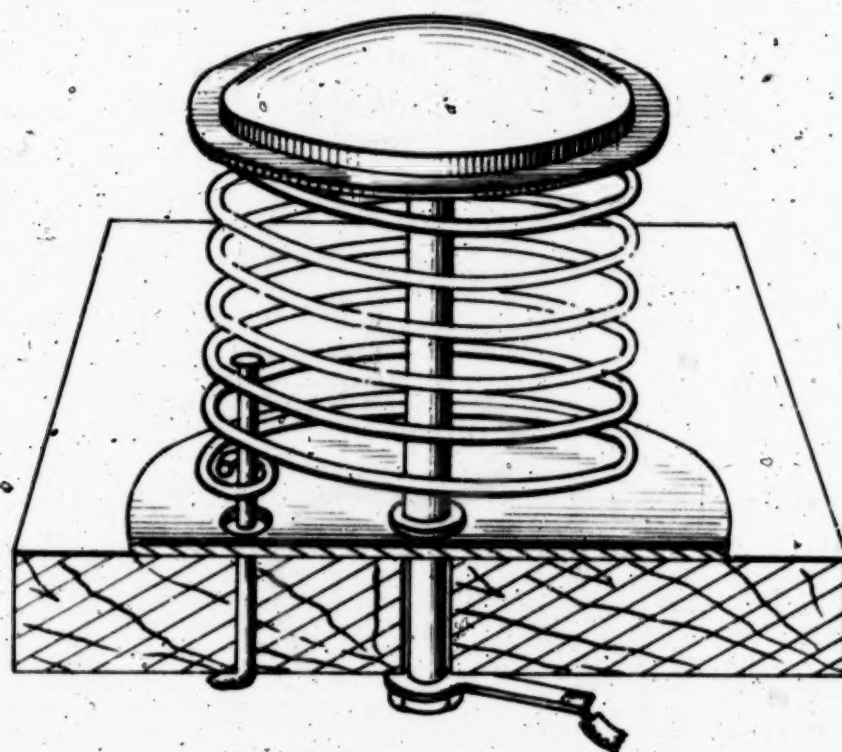
Respondent has not conceded and does not concede that the two devices (Pl. Exh. 6 and 10) in which the pin is "embedded in the table" by being embedded in a plate overlying the board portion of the table, is not "embedded in the table".

The Court's reading of the claim reads an additional limitation into the phrase in dispute, as if it read, "embedded in the *wooden or board portion of the table*". The claim is not so written. The metal plate overlying the board portion of the table is a part of the table. A pin embedded in that part of the table is "embedded in the table".

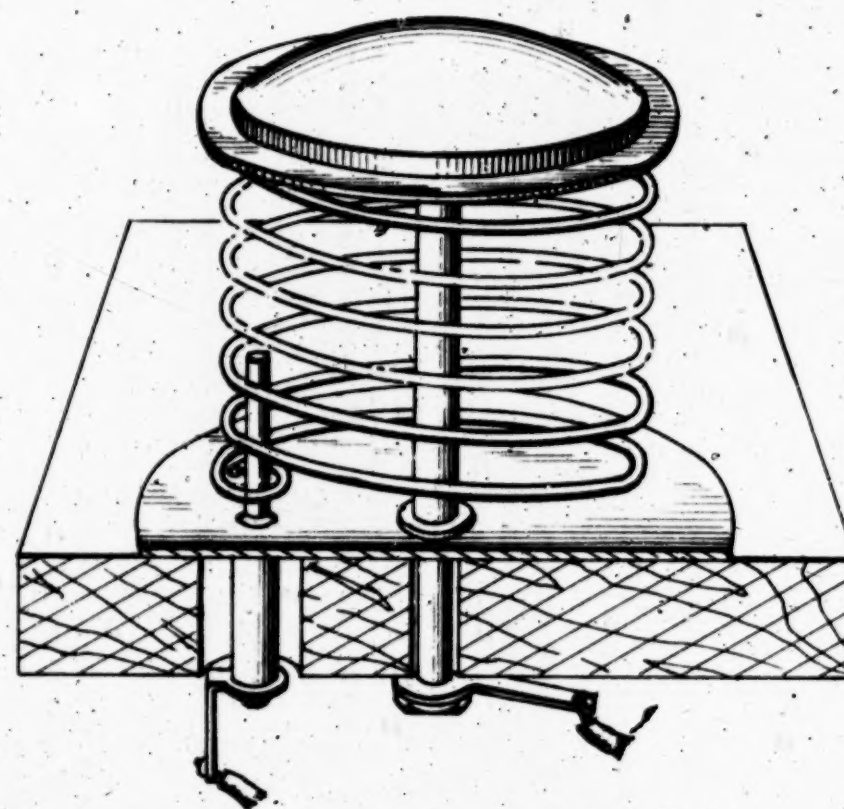
• This is evident in the accompanying comparative sketch of the devices exemplified in Plaintiff's Exhibits 5 and 6. In both devices the pin is "embedded in the table". In the first (Pl. Exh. 5) it is directly embedded in the board portion. In the second form (Pl. Exh. 6) the pin is embedded in the metal plate which forms a lamination of the table, but is nevertheless as clearly "embedded in the table". This is obvious.

This contention of Respondent is not new. It was made throughout the case, and in the briefs before this Court, where it was clearly stated that any question of equivalents in the case related only to Plaintiff's Exhibits 8 and 9:

PLAINTIFF'S EXHIBIT 5
(HELD TO INFRINGE)



PLAINTIFF'S EXHIBIT 6



COMPARATIVE CHART OF PLAINTIFF'S
EXHIBITS 5 & 6

In the Brief for Respondent here, on pages i and ii of the Table of Contents, Respondent said:

"Plaintiff's Exhibits 6 and 10 Differ from Plaintiff's Exhibits 5 and 7 Only in the Fact That Petitioners Have Cut a Large Hole in the Pin Table at the Point Where the Conductor Is Normally Embedded, and Have Covered This Hole With an Additional Lamination of Material Which Is Secured to the Pin Table by the Standard, and Have Embedded the Conductors in This Top Lamination.

"Plat IV. By Adding a Passive Plate to the Board in Plaintiff's Exhibits 6 and 10 Defendants Have Merely Constructed a Laminated Board in an Astute Effort to Evade the Literal Terms of the Claim Without Impairing the Structure or Function of the Nelson Invention."

On page 4 of that Brief Respondent said:

"The contention of non-infringement in this case is based upon the fact that in two of the infringing devices, Pl. Exh. 5 and 7, Petitioners have substituted for the ferrule mounted in the pin table board a nail or pin which is embedded in the board, and have formed a ring or ferrule at the end of the resilient coil spring to surround the pin. This is a simple reversal. Response to the claim is evident. (See Plate III at page 14 herein.)

♥ "As to the next class of infringing devices, typified by Pl. Exh. 6 and 10, Petitioners have made the additional alteration (that instead of embedding the pin directly in the pin table board, they have added to the board another lamination, which is rigidly anchored and attached to the board by means of the coil spring standard, and have embedded the pin in this upper lamination of the pin table board. This involved merely the addition of a completely passive element which became a part of the board. The attempted evasion is purely a literary device and a most transparent effort to retain all of the structural and functional characteristics of Nelson with a verbal distinction to fall back upon in case of attack. (See Plate IV at page 22 herein.)

"In the last two devices to be considered, Pl. Exh. 8 and 9, the upper lamination of the pin-table board has been removed and substituted therefor is an insulating core, which spaces the conductor from the resilient coil standard, and is anchored to the standard, which is embedded in the board, so that functionally the conductor member itself is embedded in the board. (See Plate V at page 24 herein.)

"These three classes of infringing devices will be discussed in turn, and the question of file wrapper estoppel, upon which Petitioners based their prayer for the writs granted herein, will be treated in connection with the last two devices, the only devices to which any consideration of that question is pertinent."

On pages 21 and 22 Respondent said:

"As is readily apparent from an examination of the accompanying Plate IV, the second class of infringing devices also employs a pin embedded in the board and an annular termination of the coil spring surrounding the pin to form the switch. Unlike the devices previously discussed, Pl. Exh. 5 and 7, the two devices here shown include the additional modification that the pin is embedded in a plate, which is in turn secured to the board in such a manner that it forms merely an upper lamination of the board. The metal plate serves no function whatsoever except to support the pin where, in the previous devices it was driven directly into the board.

"Can it be seriously contended that this simple device by which the pin table is transformed from a single solid board into a structure composed of a solid board with an overlying metal lamination, avoids the terms of Nelson claim 4? The question answers itself.

"The courts have uniformly, when called upon to consider the question of the separation of one unit or element of a structure into two parts which perform the same function in identically the same manner, held that infringement is not avoided by so obvious and transparent a subterfuge."

"That this rearrangement of the parts of Petition-

ers' bumper spring to embed the conductor in the added lamination of the table, instead of embedding the conductor directly in the table, does not avoid infringement is the necessary effect of the many decisions of this court dealing with the question of mechanical equivalents."

Upon these considerations it is respectfully submitted that the Court has erred in excluding the two devices exemplified by Plaintiff's Exhibits 6 and 10 from the judgment of infringement. Wherefore it is respectfully prayed that Respondent be reheard upon this issue and that the judgment of the Court be accordingly corrected.

Respectfully submitted,

CASPER W. OOMS,

Attorney for Respondent.

JOHN A. RUSSELL,

Of Counsel.

February 24, 1942.

I hereby certify that the foregoing Petition for Rehearing is filed in good faith and not for the purpose of delay.

CASPER W. OOMS,

Attorney for Respondent.

SUPREME COURT OF THE UNITED STATES.

Nos. 154, 155, 156. — OCTOBER TERM, 1941.

Exhibit Supply Company, Petitioner,
154 *vs.*
 Ace Patents Corporation.
Genco, Inc., Petitioner,
155 *vs.*
 Ace Patents Corporation.
Chicago Coin Machine Company,
 Petitioner,
156 *vs.*
 Ace Patents Corporation.

On Writs of Certiorari to
the United States Cir-
cuit Court of Appeals
for the Seventh Circuit.

[February 2, 1942.]

Mr. Chief Justice STONE delivered the opinion of the Court.

Respondent began the present litigation as three separate suits against the respective petitioners for infringement of the Nelson Patent No. 2,109,678 of March 1, 1938, for a "contact switch for ball rolling games." The defenses were non-invention in view of the prior art, anticipation by prior publication, use and sale, non-infringement and a file wrapper estoppel. The three suits were consolidated and tried together. Upon full consideration of the issues the District Court and the Circuit Court of Appeals for the Seventh Circuit held Claim 4 of the patent valid and infringed. 119 F. 2d 349.

We granted certiorari, 314 U. S. —, on a petition which challenged only the decree of infringement below, on the ground that it enlarged the scope of the patent as defined by the claim, by resort to the doctrine of equivalents, and that Nelson, the patentee, by the amendment of his claims in the Patent Office, had surrendered Claim 4 so far as it would otherwise read upon the alleged infringing devices. Neither in their petition nor in their brief and argument in this Court have petitioners contended that the patent is invalid for want of invention. Although there is no conflict of decision, we were moved to grant the petition by

the nature of the questions presented, together with a showing that the industry affected by the patent is located in the seventh circuit so that litigation in other circuits resulting in a conflict of decision would not be likely to occur.

The patent relates to the structure of a resilient switch or circuit closer, so disposed on the board of a game table as to serve as a target which, when struck by a freely rolling ball, will momentarily close an electrical circuit. Specifications and drawings disclose a target or switch comprising a conductor standard mounted in the table and carrying a coil spring having a leg pendantly disposed in a conductor ring located in the table and slightly offset from the standard. The standard and ring are wired in a circuit with a relay coil and a source of electrical energy. When a ball rolling on the table bumps the coil spring from any direction, the leg of the spring is deflected momentarily bringing it into contact with the ring, so as to close the circuit for operating the relay coil and any connected auxiliary game device. Any desired number of targets may be placed on the board in a suitably spaced relationship; in pin ball games a single ball may successively bump and close a number of the switch devices. In describing his invention the patentee declared it to be his intention "to cover all changes and modifications of the example of the invention herein chosen for purposes of the disclosure, which do not constitute departures from the spirit and scope of the invention."

The prior art as disclosed by the record shows no device in which the coil spring serves both as a target and a switch. The advantages of the device are said to be that the combination is peculiarly adapted to use in pin ball games; that the coil spring structure is so organized as to form both a switch for operating auxiliary recording or signalling devices and a target which is accessible from any direction.

Claim 4¹ claims as the elements of the invention the conductor standard anchored in the table, the coil spring surrounding the standard which carries the spring pendantly from its top, with the

¹ "4. In a ball rolling game having a substantially horizontal table over which balls are rollable, the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantly from the

spring spaced from the standard to enable the spring to be resiliently flexed, "and conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit." The drawings of the patent show the "conductor means" last mentioned in the form of a ring or ferrule set in the table with its axis at right angles to the table and with its flange projecting slightly above the surface of the table. The leg pending from the coil spring is so disposed at the center of the annular ferrule that a ball striking the spring in any direction will bring the pendant leg into contact with the ring so as to close the circuit.

The six devices alleged to infringe the patent differ from the particular claim of the invention described in the specifications, only in the specific form and method of supporting the "conductor means" which is "engageable by a portion of the spring when it is flexed". In two of the accused devices, plaintiff's Exhibits 5 and 7, there is substituted for the ring conductor set in the table a nail or pin driven into the table and surrounded near its upper end by a ring attached to the end of the resilient coil spring, or formed there of the coil wire. When the spring is struck the circuit is closed by the contact of ring and nail at a point above the table. This arrangement contrasts with that of the conductors as shown in the patent drawings, in which a ring set in the table and the pendant leg of the coil form the contact at a point near or below the surface of the table. In the one case the ring conductor is supported by the table and the complementary conductor is attached to or is formed of the wire of the spring at its end. In the other the locations of the ring and of the complementary conductor are reversed.

Two others of the accused devices, plaintiff's Exhibits 6 and 10, show a further alteration. In Exhibit 6, the nail or pin, instead of being driven directly into the table, is affixed to and supported by a metal plate resting on the upper surface of the table with the coil spring standard passing through it and holding it firmly on

upper portion of the standard above the table with the coils of the spring spaced from the standard to enable the spring to be resiliently flexed when bumped by a ball rolling on the table, said spring being in the aforementioned circuit and constituting a conductor, and conductor means in said circuit and embedded in the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit."

the table. The conductor extends to the wire connection through a hole in the table underneath the plate. In Exhibit 10 the conductor is insulated from the plate, which is rigidly anchored to the coil spring standard, which in turn is anchored to the table.

In the remaining two accused devices, plaintiff's Exhibits 8 and 9, an insulating core or sleeve surrounds the coil standard and supports an annular or enveloping conductor wired in the circuit, spaced and insulated from the coil standard so that the circuit is closed by contact of the conductor and the coil when it is flexed. In Exhibit 8 the sleeve is electrically connected with a metal plate, held in position on the top of the table by the standard which passes through the plate. A wire leading from the plate passes through a hole in the table underneath the plate. In Exhibit 9 the annular conductor is located above the table top and a wire leading from it passes through a hole in the table.

Comparison of the several accused devices shows that in all but Exhibits 5 and 7 the conductor means complementary to the coil spring is not embedded in the table, but is supported by an insulated plate resting on the table or an insulating core held in position by the standard. In Exhibits 6 and 10 the conductor means passes to its wire connection through a hole in the table underneath the plate. In Exhibit 8 the connecting wire passes through a hole in the table to a metal plate resting on its surface, and in Exhibit 9 to the conductor means located above the surface of the table.

Petitioners insist that respondent is estopped to assert infringement by the file wrapper record in the Patent Office and in any event that estoppel can be avoided and infringement established only by resort to the doctrine of equivalents, which they assert is incompatible with the statutory requirements for the grant of a patent and with the doctrine that the patent claims measure the patented invention.

The file wrapper history, so far as now relevant, relates to Claim 7 which, after amendment, was allowed as Claim 4 now in

issue. The original Claim 7 with its amendments is set forth as follows:

[Matter added by amendment in parenthesis; matter stricken in italics and underlined.]

(4) 7. In a ball rolling game having a substantially horizontal table over which balls are rollable,
the combination with said table of a substantially vertical standard anchored in said table with its lower end carrying on the underside of the table a lead for an
A¹ electric circuit and its upper end extending a substantial distance above the top surface of the table, a coil spring surrounding the standard, means carrying said spring pendantsly from the upper portion of the
per C standard (ABOVE THE TABLE) with the coils of the spring spaced from the
" " standard and the lower end of the coil spring terminating
" " at a distance above the top surface of the table to enable the spring to be resiliently flexed when
bumped
by a ball rolling on the table, said spring being in the
aforementioned circuit and constituting a conductor, and
per B other conductor means (IN SAID CIRCUIT AND EMBEDDED IN) carried by the table at a point spaced from the standard and engageable by a portion of the spring when it is flexed to close the aforementioned circuit.

The original application contained six claims, all of which the examiner rejected because he thought no patentable significance had been shown. The inventor submitted certain amendments, and two new claims, 7 and 8, and induced the examiner to reconsider the patentability of the invention. Four of the claims were then allowed, but the examiner rejected Claim 7 as failing to claim the invention. He said: "It is old in the art to make an electrical contact by flexing a coil spring as shown by the art already cited in the case. In order to distinguish over the references therefor, the applicant's particular type of contact structure, comprising an extension to the coil spring adapted to engage an annular contact embedded in the table, must appear in the claims. . . ."

Applicant rejected the examiner's suggestion that the "contact structure" be adapted to engage "an annular contact embedded in the table". Instead he cancelled "other" from the claim and substituted for "carried by" the phrase, "in said circuit and embedded in", saying Claim 7 has been "significantly amended" "to define the complementary conductor contact as being embedded in the table". He added that "it is too far to go to state that the specific leg 19 must be defined", and "the allowed claims can it seems, be very simply avoided by taking the leg 19, separating it from the spring 18 and embedding it as a pin in the table so that the spring when flexed would contact the pin. . . . Claim 7 covers such alternative form and . . . in justice to applicant should be allowed."

The examiner in reply recognized as "true" applicant's suggestion that if the leg pendant from the spring "were removed from the spring and embedded in the table an operative device would result", but pointed out that the device claimed by the amendment "would be inoperative as the coil spring could not both terminate at a distance above the table and extend into a ferrule embedded therein." Thereupon the applicant added to the claim the words "above the table" and cancelled the phrase, "and the lower end of the coil spring terminating at a distance above the top surface of the table." The claim as amended was then allowed as Claim 4.

The claim before amendment plainly read on plaintiff's Exhibits 5 and 7 in which the nail or pin conductor is driven into the table, since the nail or pin is a "conductor means carried by the table" "engageable by a portion of the spring when flexed".

The claim thus read is for an operative device since the nail or pin projects above the table and may be engaged by the coil spring similarly located. The claim, as amended and allowed as Claim 4, likewise reads on plaintiff's Exhibits 5 and 7 if the nail or pin conductor which is driven into the table is "embedded in the table".

Petitioners do not seriously assert here that it is not so embedded. In fact their brief expressly states that "we pass this contention". They could not well do otherwise, for the pin or nail even though it protrudes above or below the table not only conforms to the dictionary definition of "embed", "To set solidly as in a bed", Webster; "To fix firmly in a surrounding mass of some solid material", Oxford Dictionary, but examination of the drawings and specifications indicates clearly enough that the claim was not intended to be limited to a complementary conductor located wholly between the upper and nether surfaces of the table. The specifications and drawings express no such limitation, and it is clear that the use of the word "embedded" in the claim as finally amended, when read in its context of claim and specifications, does not indicate such a limitation.

The patent drawings show the embedded ring conductor extending slightly both above and below the table. The examiner in his second rejection of Claim 7, in saying that if the leg pendant from the spring were removed from the spring and "embedded" in the table an operative device would result, could not have referred to the embedded leg or nail as being wholly located below the surface of the table, since the pin so disposed would not be "engageable" "by a portion of the spring when it is flexed" by a ball rolling in any direction. The term is to be read as used in a permissible sense which would conform to the drawings and the function which the conductor to which the term was applied was obviously intended to perform.

We think that the word "embedded" as applied in Claim 4, must be taken to embrace any conductor means solidly set or firmly fixed in the table, whether or not it protrudes above or below the surface. Claim 7 before amendment read on the accused devices, plaintiff's Exhibits 5 and 7, which exhibit the nail or pin embedded in the table but protruding above its surface. Consequently the patentee by amending the claim so as to define the conductor means as embedded in the table did not exclude from the

amended claim devices exemplified by these exhibits and they must be deemed to be infringements.

There remains the question whether respondent may rely upon the doctrine of equivalents to establish infringement by the four other accused devices. Respondent concedes that the conductor means in the four devices are not literally "embedded in the table", but insists that the changes in structure which they exhibit over that of plaintiff's Exhibits 5 and 7 are but the mechanical equivalents of the "conductor means embedded in the table" called for by the amended claim, and so are entitled to the protection afforded by the doctrine of equivalents. Petitioners do not seriously urge that the conductor means in the four accused devices are not mechanical equivalents of the conductor means embedded in the table which the patent claims. Instead they argue that the doctrine should be discarded because it does not satisfy the demands of the statute that the patent shall describe the invention. R. S. § 4888; 35 U. S. C. § 33.

We do not find it necessary to resolve these contentions here. Whatever may be the appropriate scope and application of the doctrine of equivalents, where a claim is allowed without a restrictive amendment, it has long been settled that recourse may not be had to that doctrine to recapture claims which the patentee has surrendered by amendment.

Assuming that the patentee would have been entitled to equivalents embracing the accused devices had he originally claimed a "conductor means embedded in the table", a very different issue is presented when the applicant in order to meet objections in the Patent Office, based on references to the prior art, adopted the phrase as a substitute for the broader one "carried by the table". Had Claim 7 been allowed in its original form it would have read upon all the accused devices since in all the conductor means complementary to the coil spring are "carried by the table". By striking that phrase from the claim and substituting for it "embedded in the table" the applicant restricted his claim to those combinations in which the conductor means, though carried on the table, is also embedded in it. By the amendment he recognized and emphasized the difference between the two phrases and proclaimed his abandonment of all that is embraced in that difference. *Hubbell v. United States*, 179 U. S. 77, 83; *Weber Electric Co. v. Freeman Electric Co.*, 256 U. S. 668, 677-78; *I. T. S. Rubber Co. v. Essex Rubber Co.*,

272 U. S. 429, 440, 444; *Smith v. Magic City Kennel Club*, 282 U. S. 784, 789; *Schriber Co. v. Cleveland Trust Co.*, 311 U. S. 211; cf. in case of disclaimer *Altoona Theatres v. Tri-Ergon Corp.*, 294 U. S. 477, 492, 493. The difference which he thus disclaimed must be regarded as material, and since the amendment operates as a disclaimer of that difference it must be strictly construed against him. *Smith v. Magic City Kennel Club*, *supra*, 790; *Shepard v. Carrigan*, 116 U. S. 593, 598; *Goodyear Dental Vulcanite Co. v. Davis*, 102 U. S. 222, 228. As the question is one of construction of the claim it is immaterial whether the examiner was right or wrong in rejecting the claim as filed. *Hubbell v. United States*, *supra*, 83; *I. T. S. Rubber Co. v. Essex Rubber Co.*, *supra*, 443. It follows that what the patentee, by a strict construction of the claim, has disclaimed—conductors which are carried by the table but not embedded in it—cannot now be regained by recourse to the doctrine of equivalents, which at most operates, by liberal construction, to secure to the inventor the full benefits; not disclaimed, of the claims allowed.

Plaintiff's Exhibits 5 and 7 do, and its Exhibits 6, 8, 9 and 10 do not, infringe. The judgments will be modified accordingly.

So ordered.

Mr. Justice ROBERTS took no part in the consideration or decision of this case.

A true copy.

Test:

Clerk, Supreme Court, U. S.

SUPREME COURT OF THE UNITED STATES.

Nos. 154, 155, 156.—OCTOBER TERM, 1941.

Exhibit Supply Company, Petitioner,
154 vs.

Ace Patents Corporation.

Genco, Inc., Petitioner,
155 vs.

Ace Patents Corporation.

Chicago Coin Machine Company,
Petitioner,
156 vs.

Ace Patents Corporation.

On Writs of Certiorari to
the United States Cir-
cuit Court of Appeals
for the Seventh Circuit.

[February 2, 1942.]

Mr. Justice BLACK, dissenting, with whom Mr. Justice DOUGLAS
concurs.

I think the judgments below should be reversed in full.

There can be no infringement of a void patent, and a patent
which shows neither invention nor discovery is void.¹ The mere
application of an old mechanical instrument to a new use is not an
invention and therefore not patentable.²

The combination patented here contains not a single new ele-
ment. The whole device is nothing more than an electric switch
mounted on a table, which closes and opens with the flexing and re-
flexing of an ordinary coil spring when hit by a rolling ball. The
spring, standing upright on the table, serves as a target in a pin
ball game, its resiliency being utilized not only to make and break
the circuit but to make the ball rebound.

The Constitution authorizes the granting of patent privileges
only to inventors who make "discoveries." And the statute pro-
vides for the granting of patents only to those who have "invented

¹ Dunbar v. Myers, 94 U. S. 187; Thompson v. Boisselier, 114 U. S. 1;
Saranac Mach. Co. v. Wirebonds Co., 282 U. S. 704.

² Phillips v. Page, 24 How. 164; Paramount Corp. v. Tri-Ergon Corp., 294
U. S. 464.

or "discovered" something "new." To call the device here an invention or discovery such as was contemplated by the Constitution or the statute is, in my judgment, to degrade the meaning of those terms.

Patentees have rights given them by law. "But the public has rights also. The rights of both should be upheld and enforced by an equally firm hand, whenever they come under judicial consideration."³ By failing to assign error on the issue of patentability, parties to an infringement suit should not be permitted to foreclose a court from protecting the public interest. And here, as in other cases where there is plain error, we should notice it.⁴

³ Densmore v. Seofield, 102 U. S. 375, 378.

⁴ Sibbach v. Wilson & Co., 312 U. S. 1, 16.

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